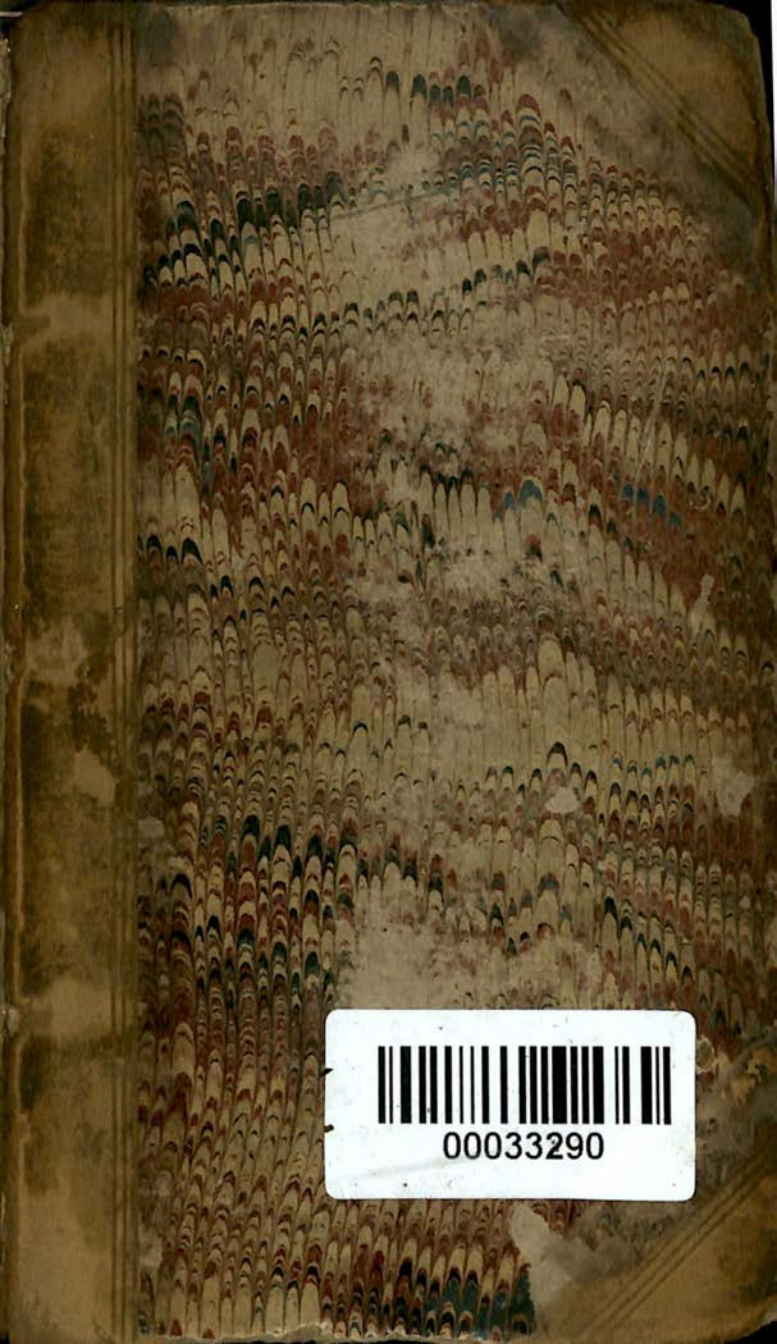
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BOMBAY BRANCH
OF THE
Royal Asiatic Society.
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LIST

OF THE

SPECIMENS

LEPIDOPTEROUS INSECTS

IN

THE COLLECTION

OF THE

BRITISH MUSEUM.

BY

FRANCIS WALKER, F.L.S.

PART VI.—LEPIDOPTERA HETEROCERA.

PRINTED BY ORDER OF THE TRUSTEES.
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CATALOGUE

OF

LEPIDOPTERA HETEROCERA.

PART VI.

Genus 8. TROPÆA.

Corpus robustum. Antennæ thorace non longiores. Pedes validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ amplæ, ocellis quatuor; anticæ non falcatæ aut vix falcatæ, apice plus minusve angulatæ, margine exteriore subrecto plus minusve obliquo; posticæ caudatæ, abdomen longe superantes. *Mas.*—Antennæ latissime pectinatæ; rami graciles, ciliati, duplicati, æqualiter longi. *Fœm.*—Antennæ sat late pectinatæ; rami longi subclavati, alterni subclavati. Abdomen crassum.

Tropæa, *Hübn. Verz. Schmett.* 152.
Phalæna-Bombyx Attacus, p., *Linn.; Cram.; Gmel.*
Bombyx, p., *Fabr; Oliv.*
Actias, *Leach; Macleay; Doubleday; Westw.; Duncan.*
Saturnia, p., *Boisd.; Westw.; Gräells.*

Antennæ not longer than the thorax. Legs stout; hind tibiæ with two minute apical spurs. Wings ample, each with an ocellus.

15 .

Fore wings not or hardly falcate, more or less angular at the tips, nearly straight and more or less oblique along the exterior border; inferior vein twice or thrice further from the third than from the first. Hind wings with tails more or less long. *Male.*—Antennæ very deeply pectinated; branches of equal length, slender, ciliated, in pairs. Abdomen moderately stout. *Female.*—Antennæ rather deeply pectinated; branches alternately long and short; the long branches subclavate. Abdomen stout.

Europe.

1. Tropæa Isabellæ.

Alæ patentes, anticæ rotundatæ, posticæ caudatæ, omnes virides, subdiaphanæ, basi lanuginosæ, marginibus venisque purpureo-ferrugineis, ocellatæ, ocellis fenestratis, annulatis; in uno quoque, annulo externo nigro, interno dimidio luteo, dimidio purpureo; alarum anticarum limbus externus luteo et nigro quadrivittatus; posticarum tantum trivittatus. Corpus longe villosum; oculi nigri; frons, antennæ scapulique luteola; cervix et tergum purpurascentia; abdomen luteo nigro et purpureo obscuro annulatum; pedes purpurei, femoribus lanugine flava longe ciliatis.

Saturnia Isabellæ, *Graëlls, Ann. Soc. Ent. Fr. 2me Sér.* viii pl. 8.

Spain.

North America.

2. Tropæa Luna.

Alæ flavo virentes concolores, ocello disci lunato; margine exteriore purpureo; anticæ apud costam purpureæ; posticæ caudis longis, abdomen dimidio superantes.

Phalæna-Bombyx Attacus Luna, *Linn. Syst. Nat.* i. 2, 810, 5. *Mus. Lud. Ulr.* 370. *Ulerck, Icon.* pl. 52, f. 2. *Cram. Pap. Exot.* i. 3, pl. 2, f. A; 59, 51, pl. 31, f. A, B. *Gmel. ed. Syst. Nat.* i. 5, 2404, 5. *Pal. Beauv. Ins. Afr. et Amer. Lép.* pl. 22, f. 3. *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* pl. 48.

— ———, *Drury, Ill. Exot. Ins.* i. pl. 4, f. 1. *Catesby, Carol.* ii. 85, pl. 84. *Houthien, Nat. Hist.* i. 11, 49, 15. *Petiver, Gazoph.* pl. 14, f. 5.

Bombyx Luna, *Fabr. Sp. Ins.* ii. 170, 15; *Mant. Ins.* ii. 109, 17; *Ent. Syst.* iii. 1, 414, 22. *Oliv. Enc. Méth.* v. 29, 20, pl. 70, f. 1.

Tropæa Luna, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Caudatæ*) 152, 1587.

Male. Abdomen extending to about half the breadth of the hind wings, excluding the tails. Tails as long as the breadth of the hind wings.

a, *b*. United States. Presented by E. Doubleday, Esq.
c. Mexico. From Mr. Hartweg's collection.

Africa.

3. Tropæa Mimosæ.

Alæ glauco-virides; anticæ costa subcinerea linea vel striga undulata subcinereo-fusca paullo pone medium maculaque subcinerea ad angulum posticum; omnes ocello æquali, flavo, iride tenui castanea anticeque lunula tenui subcinerea notata; posticæ in caudam longissimam spatulatam basi subcinereo-fuscam, apice flavo-viridi productæ.

Saturnia Mimosæ, *Boisduval, Voy. de Delegorgue dans l'Afriq. Austr.* 600. *Westw. Proc. Zool. Soc. Lond.* 1849, 47, 11.
——— ———, *Angas, Pl. Zoolu Moths*, f. 18.
Saturnia Campionea, *Signoret, Ann. Soc. Ent. France*, 1845. *Journ. Proc.* xcvii.

"*Male.* Antennæ very broad, emitting fifty rays on each side, the five or six terminal joints with very short rays. The rays on each side of each joint arise at a little distance from the base and extremity of each joint, so that there is a more decided space between the second ray of one joint and the first ray of the next joint than usual."—*Westw.*

Male. Bright glaucous-green. Body testaceous. Head white. Thorax in front, costa and a large spot near the interior angle of the fore wings reddish brown powdered with white. Wings with a slender zigzag brown band, which is much nearer the exterior border in the hind wings than in the fore wings; exterior border with narrow elongated brown lunules; ocellus elliptical in the fore wings, nearly round in the hind wings, bounded on one side with brown, testaceous and ferruginous, and on the other with brown, red, black and blue. Fore wings with a reddish brown white-powdered band between the costa and the ocellus; hind wings

with the like hue on the basal half of the tails, which are rather longer than the breadth of the rest of the wing.

a. South Africa. Presented by G. F. Angas, Esq.
b—d. Port Natal. From M. Gueinzius' collection.
e, f. Port Natal. From Mr. Stevens' collection.
g. ———?

Asia.

A. Alæ posticæ caudis longiores.
  A. Alæ posticæ caudis perangustis. - - Leto, *Doubleday*.
  B. Alæ posticæ caudis sat latis. - - Mænas, *Doubleday*.
B. Alæ posticæ caudis breviores.
  A. Alæ anticæ fascia nulla undulosa. - Selene, *Macleay*.
  B. Alæ posticæ fascia undulosa. - - - Sinensis, *Walk*.

4. Tropæa Selene.

Glauco-viridis; abdomen album; thoracis fascia antica et alarum anticarum costa purpurea; alæ fascia viridi; ocellus subroseus extus flavo, intus ferrugineo nigro et cyaneo marginatus.

Tropæa Selene, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Caudatæ*) 152, 1588.
Actias Selene, *Macleay; Leach, Zool. Misc.* ii. pl. 70.
Larva, *Hutton, Trans. Ent. Soc. Lond.* v. 45, pl. 5, f. 11.

Male very much smaller than the female. Abdomen extending to about half the breadth of the hind wings, excluding the tails, which are nearly as long as the breadth of the hind wings.

a. Nepaul. Presented by Major-Gen. Hardwicke.
b, c. East Indies. From Mr. Milne's collection.
d—f. Silhet. From Mr. Sowerby's collection.
g. Silhet. From the Rev. J. Stainforth's collection.
h. North China. From Mr. Cuming's collection.
i. North India. From Dr. Hooker's collection.
j. Ceylon. From the Rev. J. Wenham's collection.
k. Nepaul. Presented by Major-General Hardwicke.
l. North China. From Mr. Fortune's collection.
m. ———?

5. Tropæa Mænas.

Mas. *Alæ pallide viridi-flavæ, marginibus externis rufescentibus; anticæ costa ferruginea, cinereo lavata, lunula magna discali fascia transversa baseos, alteraque postica indistincta valde undata rufescentibus; posticæ longe caudatæ ocello parvo discali nigro antice cincta, fascia pone medium flexuosa obsoleta rufescente.*

Actias Mænas, *Doubleday, Ann. Nat. Hist.* 1847, 95. *Westw. Cab. Orient. Ent.* 45, pl. 22, fig. inf.

This species differs from *T. Selene* in the following characters. The wings are yellow; the thorax is wholly purplish in front; the wings are red along the exterior margin, and have no exterior band; the fore wings have a band between the base and the ocellus, which is large and sickle-shaped, and very different from that of *T. Selene*, and the hind wings have longer tails.

a. Silhet. Presented by J. C. Dale, Esq.
b. ——?

6. Tropæa Leto.

Alæ pallide viridi-flavidæ, basi linea tenui undata transversa marginibusque externis plus minusve obscure fuscis; anticæ elongatæ, triangulares, lunula magna; posticæ parvæ, subtrigonæ, cauda longissima apice dilatata, lunula parva.

Var. Mas. *Cervina; abdomen alarum posticarum dimidium paullo superantes; alæ fascia lata irregulari flava strigas nonnullas undulosas cervinas includente; anticæ ocello falciformi flavescente cervino nigro cyaneoque marginata; posticæ ocello rotundo cervino antice nigro marginato.*

Seturnia Leto, *Doubleday, Proc. Ent. Soc. Lond.* v. 11.

Male. Fawn-colour. Abdomen extending to rather more than half the breadth of the hind wings, whose tails are about twice the length of the other part. Wings with a pale yellow broad irregular band, which is straitened in the middle of the fore wings and much dilated in front, and contains some undulating fawn-coloured bands. Fore wings with a sickle-shaped yellowish ocellus, which is bordered with fawn-colour, and on the inner side with black, which last colour contains a blue streak. Hind wings with a round fawn-coloured ocellus, which is bordered with black in front.

East Indies.

a. ——?

7. Tropæa Sinensis.

Mas. *Flava; antennæ testaceæ; thorax antice roseus; alæ linea media undulosa fulva, anticæ apud costam roseæ, posticæ margine exteriore rufo, caudis sat longis; ocellus pupilla rosea, margine antico nigro-fusco.*

Male. Yellow. Body whitish beneath. Antennæ testaceous. Thorax rosy in front. Femora whitish; tibiæ and tarsi tawny. Wings with a very slender deeply undulating tawny middle band; ocellus rosy in the centre, luteous in front, with a brown border, which is much darker and broader in front than elsewhere. Fore wings rosy along the costa. Hind wings ferruginous along the exterior border and across the tails, which are much shorter than the breadth of the wings. Length of the body 9 lines; of the wings 48 lines.

a. North China. From Mr. Stevens' collection.

Country unknown.

8. Tropæa Dictynna.

Flavo-viridis; caput et thorax anticus albida; thorax fascia antica lata purpurea; alæ fascia exteriore, angusta incompleta pallide fusca, ocello transverso elliptico vitreo annulis fuscis fulvis nigris cyaneis subpurpureis rufis luteis et ferrugineis; antica vitta costali strigaque purpureis; posticæ caudis longis.

Yellowish green. Head and fore part of the thorax whitish. Thorax with a broad purple band in front. Wings with an exterior slender incomplete pale brown band, which is most incomplete on the hind wings. Fore wings with a purple costal stripe, from whence a short branch proceeds to the vitreous ocellus; the latter is transversely elliptical and is bordered with brown, tawny, black, blue and black on the inner side, and with lilac, red, luteous and ferruginous on the outer side. Hind wings with a round ocellus, larger than that of the fore wings, but with the like disposition of colours; tails rather shorter than the breadth of the hind wings. Length of the body 12 lines; of the wings 52 lines.

This species much resembles *T. Luna*, but may be distinguished by the band on the wings, by the not empurpled exterior border, by the fore wings, which have a less oblique and more straight exterior border, and by the hind wings, which have shorter tails.

In Mr. Saunders' collection.

Genus 9. EUDÆMONIA.

Corpus sat gracile. Palpi porrecti, sat graciles. Pedes graciles. Alæ anticæ sat angustæ, apud costam rectæ, apice rotundatæ, margine exteriore perobliquo; posticæ, abdomen longe superantes, caudis longissimis.

Eudæmonia, *Hübn. Verz. Schmett.* 151.
Phalæna-Bombyx Attacus, p., *Cram.; Drury; Gmel.*
Bombyx, p., *Fabr.; Oliv.; Donov.*
Saturnia, p., *Westw.*
Eustera et Copiopteryx, *Duncan, Naturalist's Library.* vii.

Body rather slender. Palpi porrect, rather slender. Legs slender. Fore wings rather narrow, straight along the costa, rounded at the tips, very oblique along the exterior border; second inferior vein about thrice further from the third than from the first. Hind wings extending far beyond the abdomen, with very long tails.

The two species of *Eudæmonia* differ much in structure, and *E. Semiramis* ought probably to be transferred to the genus *Tropæa*. *E. Argus* is perhaps the most aberrant form of all the *Saturniidæ*.

1. EUDÆMONIA SEMIRAMIS.

Alæ versicolores, puncto fenestrato; posticæ caudis longissimis.

Phalæna-Bombyx Attacus Semiramis, *Cram. Pap. Exot.* i. 19, pl. 13, f. A. *Gmel. ed. Syst. Nat.* i. 5, 2404, 470.
Bombyx Semiramis, *Fabr. Gen. Ins.* 277; *Sp. Ins.* ii. 170, 13; *Mant. Ins.* ii. 109, 15; *Ent. Syst.* iii. 1, 413, 20. *Oliv. Enc. Méth. Ins.* v. 28, 18, pl. 69, f. 8.
Eudæmonia Semiramis, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Candatæ*), 151, 1585.

Proboscis very short. Palpi extending as far as the head, pilose beneath. Hind tibiæ with two rather long apical spurs. Fore wings slightly rounded at the tips, almost straight along the exterior border.

a. Honduras. From Mr. Miller's collection.

2. Eudæmonia Argus.

Alæ omnes pallide carneo-albidæ; anticæ margine postico rotundatæ, disco punctis sex in medio approximatis, fenestratis, annulo fulvo nigroque cinctis; posticæ punctis quinque sparsis ejusdem coloris, margine anali in caudam longissimam extenso.

——— ———, *Drury, Ill. Exot. Ins.* iii. pl. 39, f. 1.

Phalæna-Bombyx Attacus brachyura, *Cram. Pap. Exot.* iii. pl. 29, f. 1.

Phalæna-Bombyx Attacus Argus, *Stoll, Suppl. Cram. Pap. Exot.* 127, pl. 27, f. 1. *Gmel. ed. Syst.* i. 5, 2405, 473.

Bombyx Argus, *Fabr. Sp. Ins.* ii. 170, 17; *Mant. Ins.* ii. 109, 19; *Ent. Syst.* iii. 1, 414, 24. *Oliv. Enc. Méth. Ins.* v. 29, 22, pl. 70, f. 2. *Donov. Nat. Repos.* 5, 173.

Eudæmonia Uroarge, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Caudatæ*), 151, 1586.

Saturnia Argus, *Westw. ed. Drury*, iii. 39, pl. 39, f. 1; *Proc. Zool. Soc. Lond.* 1849, 49, 12.

Proboscis not visible. Palpi extending far beyond the head; third joint elongated. Hind tibiæ with two short apical spurs. Fore wings slightly convex, and extremely oblique along the exterior border.

"Fore wings considerably rounded along the apical margin. Veins of the fore wings similarly arranged to those of *S. Mimosæ*, &c., but those of the hind wings are peculiar in having the veinlet which connects the inner branch of the post-costal vein and the outer branch of the median vein closing the discal areolet so oblique (as well as subangulated in the middle) that it seems like a real fourth branch of the post-costal, running down within the outer margin of the tail, the base of the outer branch of the median vein being so thin and short that it resembles the ordinary condition of the veinlet closing the areolet, although its nearly longitudinal direction indicates its real nature as a branch of the median vein." —*Westw.*

a. Ashanti. From the Wesleyan Missionary Society's collection.
b, *c*. Sierra Leone?

Genus 10. GYNANISA.

Antennæ thorace longiores. Thorax utrinque fasciculatus. Alæ longiusculæ, mediocriter latæ, macula minima vitrea; alæ anticæ non falcatæ, apud costam subrectæ, apice vix angulatæ, margine exteriore obliquo subinciso, macula vitrea angusta; posticæ margine exteriore subinciso, macula vitrea irregulari. *Mas.*—Antennæ latissime pectinatæ; rami æqualiter longi. Abdomen robustum. Alæ posticæ abdomen triente superantes. *Fœm.*—Abdomen crassum, alas posticas paullo superans.

Saturnia, p., *Westw.*; *Klug.*

Antennæ longer than the thorax. Thorax with a lappet on each side. Abdomen not extending so far as the hind wings. Wings rather long, moderately broad; each with a very small vitreous spot. Fore wings nearly straight in front, not falcate and hardly angular at the tips, oblique and very slightly notched along the exterior border; vitreous spot narrow, oblique, a little larger than that of the hind wings. Hind wings slightly notched along the exterior border; vitreous spot irregular in form, enclosed in a very large ocellus. *Male.*—Antennæ very deeply pectinated; branches of equal length. Abdomen rather stout, extending to about two-thirds of the breadth of the hind wings. Fore wings with the exterior border a little more oblique than that of the female. *Female.*—Abdomen thick, extending to three-fourths of the breadth of the hind wings.

This genus may be distinguished from *Samia* by its vitreous spots, and from the other genera by the form of the wings.

1. Gynanisa Isis.

Alæ subcinereæ nigro fuscoque irroratæ, striga fusca valde dentata ante medium alterisque duabus nigris pone medium, ocello parvo vitreo antice nigro; posticæ ocello maximo ornatæ, pupilla nigra postice subvitrea, iride obscure fulva annulisque concentricis nigro, subluteo, pallide carneo, purpureo-rufescente, iterumque carneo et pone hanc striga curvata nigra, apice obscure albido limbo subcinereo.

Saturnia Isis, *Westw. Jard. Nat. Libr. Entom.* vii. 138, pl. 13; *Proc. Zool. Soc. Lond.* 1849, 53, 21.

Saturnia Maia, *Klug, Neue Schmett.* pl. 5, f. 1.

"No apparent spiral tongue. Palpi distinct, not visible from above. *Male.* — Antennæ considerably elongated, with the rays bent backwards instead of lying flat; eighty-eight rays on each side of the antennæ, the rays extending to the tip, so that the antennæ are composed of about forty-four or forty-six joints. *Female.*— Wings rather shorter than in the male, not at all emarginate along the apical margin. Antennæ setaceous, only slightly bipectinated, being gradually more slender from about one-third of the distance from the base to the apex, each joint emitting four rays, the joint at each point of emission being swollen."—*Westw.*

a, *b*. Port Natal. From M. Gueinzius' collection.
c. South Africa. From Mr. Argent's collection.
d. Cape. From Mr. Dregé's collection.
e, *f*. South Africa. Presented by G. F. Angas, Esq.

Genus 11. SATURNIA.

Corpus robustum. Palpi brevissimi. Antennæ thorace paullo longiores. Pedes validi, pilosi; tarsi longiusculi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latæ, plus minusve elongatæ; ocellus rotundus, striga arcuata vitrea. Alæ anticæ non falcatæ, apice rotundatæ; posticæ abdomen superantes. *Mas.*— Antennæ latissime pectinatæ; rami duplicati, æquales, graciles, ciliati. *Fœm.*—Antennæ mediocriter pectinatæ, aut subpectinatæ; rami alterni abbreviati. Abdomen crassum.

Phalæna-Bombyx Attacus, p., *Linn.*; *Cram.*; *Gmel.*; *Donov.*; *Turt.*; *Berk.*; *Stew.*
Bombyx, p., *Fabr. Hübn.*; *Haw.*
Phalæna, p., *Deg.*; *Scop.*; *Berk.*; *Wilkes.*
Saturnia, p., *Schr.*; *Leach.*
Pavonia, *Hübn. Verz. Schmett.* 157; *Steph.*; *Herr.-Schæff.*
Attacus et Henioche, *Germ.*
Attachus, p., *Latr.*

Body stout. Palpi very short. Antennæ a little longer than the thorax. Legs stout, pilose; tarsi rather long; hind tibiæ with two minute apical spurs. Wings broad, more or less long; each with a slender curved hyaline streak in the ocellus. Fore wings not falcate, hardly convex along the costa, rounded at the tips, oblique or very oblique along the exterior border; vein almost twice further from the third than from the first. Hind wings extending more or less beyond the abdomen. *Male.*—Antennæ very deeply pectinated; branches of equal length, slender, ciliated, in pairs.

Abdomen stout. *Female.*—Antennæ moderately or very minutely pectinated; branches shorter on one side than on the other; alternate branches rudimentary. Abdomen thick.

Europe.

A. *Mas et fœm.* concolores. Scutellum pilis cinereis.
A. Maxima, fusca; fascia limbalis basim versus integra. Pyri, *Borkh.*
B. Media, fusco-cinerea; fascia limbalis basim versus dilatata. Spini, *Borkh.*
B. *Maris* alæ posticæ aurantiacæ. Scutellum thorace concolor. Carpini, *Borkh.*

1. Saturnia Pyri.

Alæ rotundatæ cinereo nebulosæ subfasciatæ, ocello nictitante subfenestrato.

——— ———, *Röes. Ins.* iv. pl. 15, 17. *Seba, Mus.* iv. pl. 59, f. 18; pl. 60, f. 11, 12. *Poda, Mus. Græc.* 83. *Göed. Ins.* iii. pl. 2. *List. Göed.* 28. *Act. Paris,* 1692. *Knorr. Delic. Ins.* pl. C. 3, f. 2. *Rausch, Theatr. Anim.* ii. pl. 7. *Goëdart, Ins.* i. 62, f. Z. *Geoff. Ins. Par.* ii. 100, 1. *Reaum. Ins.* i. pl. 47, 48. *Fuesl. Ins.* 631, 33. *Ernst, Pap. d'Eur.* iv. 72, pl. 130, 131, f. 176.

Phalæna Pavonia, *Scop. Ent. Carn.* 191, 482. *Fuesll. Schw. Ins.* 33, 631.

Phalæna-Bombyx Attacus Pavonia *var.* major, *Linn. Syst. Nat.* ii. 810, 7; *Faun. Suec.* 1099. *Gmel. ed. Syst. Nat.* i. 5, 2405, 7. *Esp. Schmett.* iii. 28, pl. 1, 2. *Lang. Verz.* ii. 81, 629, 630. *Schwarz. Raup.* 366.

Bombyx Pavonia *var.* Major, *Fabr. Syst. Ent.* 559, 14; *Sp. Ins.* ii. 171, 24; *Mant. Ins.* ii. 110, 27; *Ent. Syst.* iii. 1, 417, 32. *Oliv. Enc. Méth. Ins.* v. 32, 35. *Rossi, Faun. Etr.* ii. 168, 1073; *ed. Illig.* 270, 1073. *Schr. Faun. Boic.* ii. 1, 248, 1420. *God. Lép. de France,* iv. 60, pl. 4.

Bombyx Pyri, *Borkh. Eur. Schmett.* iii. 27, 1. *Wien. Verz.* 49, 1. *Hübn. Bomb.* 1163, pl. 15, f. 56. *Larv. Lep.* iii. *Bomb.* ii. *Veræ,* A. a. f. 1, a—c. *Ochs. Schmett. von Eur.* iii. 2, 1. *Illig. N. Ausg.* i. 63, 1.

Pavonia Pyri, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Herææ Speciosæ*), 157, 1636.

Saturnia Pyri, *Schr. Faun. Boic.* ii. 2, 149, 1. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 96, 1, 1.

a, *b*. Athens. Presented by — Merlin, Esq.
c. France? From Mr. Milne's collection.
d, *e*. France.

2. Saturnia Spini.

Alæ rotundatæ cinereo fuscoque variæ, singulæ ocello nigro.

——— ———, *Geoffr. Ins. Par.* ii. 101, 2. *Illig. N. Ausg. dess.* i. 64, 2; *Mag.* ii. 46, 2. *Schr. Faun. Boic.* ii. 1, 248, 1421. *Ernst, Pap. d'Eur.* iv. 77, pl. 132, 177.

Bombyx Pavonia *var.* media, *Fabr. Mant. Ins.* ii. 110, 27; *Ent. Syst.* iii. 1, 417. *Oliv. Enc. Méth. Ins.* v. 33, 36. *God. Lép. de France*, iv. 65, pl. 5, f. 1.

Phalæna Attacus Spini, *Lang. Verz.* ii. 81, 637, 638.

Phalæna-Bombyx Attacus Pavonia *var.* media, *Gmel. ed. Syst. Nat.* i. 5, 417. *Esp. Schmett.* iii. 33, pl. 3, f. 1—7. *Schwarz. Raup.* 370.

Bombyx Spini, *Borkh. Eur. Schmett.* iii. 31, 2. *Wien. Verz.* 49, 2. *Hübn. Bomb.* 116, 2, pl. 14, f. 55; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, A. f. 2, a. *Ochs. Schmett. von Eur.* iii. 4, 2.

Pavonia Spini, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Herææ Speciosæ*), 157, 1637.

Saturnia Spini, *Schr. Faun. Boic.* ii. 2, 149, 2. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 96, 2.

a, *b*. France?

3. Saturnia Carpini.

Alæ cano cinereoque nebulosæ et fasciatæ, ocello nictitante subfenestrato.

——— ———, *Mouff. Ins.* 20. *Jonst. Ins.* pl. 8, f. 7. *Rai, Ins.* 146, 1. *Petiv. Gaz.* pl. 33, f. 12. *Albin, Nat. Hist. Engl. Ins.* pl. 25, f. 37, a—h. *Merian, Ins. Eur.* pl. 13, f. 23. *Réaum. Ins.* i. pl. 50. *Röes. Ins.* i. *Phal.* 2, pl. 5. *Deg. Ins.* i. 2, 47, 120, 206, pl. 19, f. 1—12. *Geoffr. Ins. Par.* ii. 1012, 3. *Schæff. Elem.* pl. 98, f. 2; *Icon.* pl. 89, f. 2—5. *Sepp. Neederl. Ins.* pl. 10, 11. *Pap. d'Eur.* iv. 178, pl. 133, f. 178; *Suppl.* pl. 2, f. 178. *Naturf.* vii. 127; xii. 72, pl. 2, f. 6; xix. 215, 7.

Phalæna-Bombyx Attacus Pavonia *var.* minor, *Linn. Syst. Nat.* i. 2, 810, 7; *Faun. Suec.* i. 835, 1099. *Gmel. ed. Syst. Nat.* i. 5, 2405, 7. *Berk. Syn.* i. 132, pl. 10, f. 7. *Wilkes*, 16, pl. 32, 33. *Donov. Nat. Hist. Brit. Ins.* i. 1, pl. 1; viii. pl. 254. *Turt. Syst. Nat.* iii. 198. *Stew. El. Nat. Hist.* ii. 144. *Esp. Schmett.* iii. 35, pl. 4, f. 1—6. *Rossi, Faun. Etr.* ii. 168, 1072; *ed. Illig.* 269, 1072. *Lang. Verz.* ii. 81, 631—636. *Schwarz. Raup.* 234, 371.

Phalæna Pavoniella, *Scop. Ent. Carn.* 483, 192. *Fuessl. Schw. Ins.* 33, 632.

Bombyx Pavonia, *var.* minor, *Fabr. Sp. Ins.* ii. 171, 24; *Mant. Ins.* ii. 110, 27; *Ent. Syst.* iii. 1, 417. *Oliv. Enc. Méth. Ins.* v. 33—37. *Schwarz, Beytr.* 42, pl. 5, f. 1—8. *God. Lép. de France*, iv. 68, pl. 5, f. 2, 3.

Phalæna Pavonia, *Sulz. Ins.* 38, 1, pl. 16, f. 92. *Müll. Faun. Fridr.* 38, 348; *Zool. Dan.* 117, 1347.

Phalæna Pavonia minor, *Fuessl. Alt. Mag.* i. 2, 268. *Hufnagel, Tab. Berl. Mag.* ii. 3, 394, 1.

Phalæna Pavonia, *Fuessl. N. Mag.* iii. 2, 149, 69.

Saturnia Pavonia minor, *Steph. Ill. Brit. Ent. Haust.* ii. 37.

Bombyx Carpini, *Borkh. Eur. Schmett.* iii. 34, 3; *Rhein. Mag.* i 328, 154. *Schr. Faun. Boic.* ii. 1, 249, 1422. *Hübn. Bomb.* 116, 1, pl. 14, f. 53, 54; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, A. f. 1, a—c. *Wien. Verz.* 50, 3. *Brahm. Ins. Kal.* 173, 83; 450, 315. *Illig. N. Ausg. Dess.* i. 66, 3. *Vieweg. Tab. Verz.* i. 29, 1.

Saturnia Carpini, *Schr. Faun. Boic.* ii. 2, 149. *Ochs. Schmett. von Eur.* iii. 6, 3. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 96. *Zett. Ins. Lapp.* 921, 1.

Pavonia Carpini, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Herææ Speciosæ*), 157, 1638.

a—o. England. From Mr. Stephens' collection.
p. England. Presented by H. Doubleday, Esq.
q—t. England.
v. Lapland. Presented by J. R. Crowe, Esq.
u. Europe. From M. Becker's collection.
w. Europe. Presented by J. G. Children, Esq.
x—bb. France.

Africa.

4. Saturnia Apollonia.

Alæ pallide fuscæ albo flavoque variæ; anticæ fascia subapicali flava extus fusca; posticæ albæ strigis duabus fuscis pone medium, exteriore flavo intus marginata; omnes ocello nigro in mediâ subvitreo iride alba; anticæ etiam annulo flavo cincto; corpus album, thoracis macula media fusca.

Saturnia Apollonia, *Westw. Proc. Zool. Soc. Lond.* 1849, 47, 10.
Phalæna-Bombyx Attacus Apollonia, *Cram. Pap. Exot.* iii. 97, pl. 250, f. A.
Bombyx Apollonia, *Oliv. Enc. Méth. Ins.* v. 31, 28, pl. 70, f. 4.
Henioche Apollonia, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Herææ Speciosæ*), 157, 1639.
——— ———, *Angas, Pl. Lepid. Zoolu Country.*

"*Male.* Antennæ fulvous, short; the pectinations forming an elongate ovate outline, pointed at the tip, with only thirty-eight rays on each side, four being emitted from each joint. The rays lie flat, and several of the terminal joints are destitute of rays. *Female.*—Antennæ twenty-four jointed, the pectinations forming a much narrower oval outline than in the male: the pectinations of the basal part being short, each joint emitting four rays, of which the apical pair is not above half the length of the basal ones."—*Westw.*

a. Port Natal. From M. Gueinzius' collection.
b. South Africa. Presented by Dr. A. Smith.
c. Cape. From M. Dregé's collection.

5. Saturnia atlantica.

Caput et thorax fuscescentia, antice alba, postice albo rubroque annulata; abdomen supra fulvum albo annulatum, subtus albido subcinerascens, lateribus utrinque 5-rubescente maculatis; antennæ flavæ; alæ anticæ cinerascentes, antice subtilissime albo maculatæ, postice fusco-cinerascentes, fulvescente marginatæ, in medio fortiter nigro lunatæ, oculo nigrescente, pupilla lunulata, translucente irideque flava, hac intus rubro bilunulata; basi fusca, vitta transversa angustata antice rufo tincta, posticeque sat fortiter denticulata; alæ posticæ anticis similes, attamen vittis antice posticeque fuscis, vitta postica fortiter denticulata.

Saturnia atlantica, *Lucas, Explor. Scient de l'Alger. Anim. Artic.* iii. 379, 91, pl. 3, f. 4.

Algiers.

Asia.

6. Saturnia Pyretorum.

Alæ rotundatæ albo lacteæ, singula ocello nictitante lunula tenui vitrea inclusa ornata; strigis duabus posticis valde dentatis fascia lata subapicali fusca connexis, limboque postico fusco; anticæ basi fasciaque fuscis.

Saturnia Pyretorum, *Boisduval, MSS. Westw. Cab. Orient. Ent.* 49, pl. 24, f. 2.

This species much resembles *S. Spini* in colour and markings, but is very different in the antennæ and in the shape of the fore wings. The antennæ are much longer, and like those of *S. Pyri* in structure; the slightly falcate fore wings are longer and narrower, and much more oblique along the exterior border. The hind wings of the female have no ocellus.

a—c. South Asia. Presented by E. Doubleday, Esq.

7. Saturnia Boisduvalii.

Mas et fœm. *Albida; antennæ testaceæ; thorax fusco fasciatus; alæ plaga magna subquadrata basali cinerea fusco antice marginata, lineis nonnullis margineque fuscis, fascia submarginali albo marginata obscuriore; anticæ lunula basim versus fusca strigaque antica transversa ferruginea; ocellus fuscus, intus rufo alboque lunulatus.*

Saturnia Boisduvalii, *Eversmann, Bull. Soc. Imp. Nat. Mosc.* xx. 3, 74, 9, pl. 4, f. 5.

Irkoutsk, Siberia.

The three following species may possibly not belong to the genus *Saturnia*.

8. Saturnia? undulata.

Nigra; antennæ pectinatæ, luteo-fuscescentes; thorax lutescente striatus; abdomen lutescente cingulatum, costis lutescentibus; alæ rotundatæ, anticæ lutescente undulatæ, fascia lata submarginali lutea, fusco nigroque undulata; venæ cærulescentes hac in fascia.

Saturnia undulata, *Bremer und Grey, Beitr. zur Schmett. Fauna des Nordlichen China*, 16, 78.

North China.

9. Saturnia? Lavendera.

Fœm. *Alæ flavæ; basi obsolete fusco strigosæ; omnes ocello parvo anali (fere æquali) livide carneo, medio vitreo, nigro tenue cincto, anticæ pone medium strigis duabus tenuibus undulatis valde obliquis, fascia lata fulvo-fusca extus undulata maculaque parva nigra subapicali; posticæ striga ante medium integra, alteraque pone medium dentato nigris sericque subapicali lunularum fulvo fuscarum.*

Saturnia Lavendera, *Westw. Ann. Nat. Hist.* 2nd *Ser.* xv. 297.

Mexico.

10. Saturnia? Melvilla.

Mas. *Alæ sulphureo-fulvæ; anticæ versus basim obscure angulato fasciatæ, ocello parvo medio rotundato in medio vitreo carneo bicingulato, fascia lata subcinerea intus striga undata fusco-ferruginea et extus serie macularum ejusdem coloris inclusa; posticæ ocello minimo cæco carneo, fascia subcinerea versus costam obliterata similiter inclusa.*

Saturnia Melvilla, *Westw. Ann. Nat. Hist.* 2nd *Ser.* xv. 303.

Melville Island.

Genus 12. RINACA.

Corpus sat robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ thorace multo longiores. Pedes sat longi et graciles; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longæ, sat latæ; ocellus lunatus, truncatus, linea media arcuata vitrea. Alæ anticæ apud costam subrectæ, apice rotundatæ, margine exteriore valde obliquo. *Mas.*—Antennæ latissime pectinatæ, ramis duplicatis ciliatis æqualiter longis. Abdomen fasciculis duobus apicalibus. Alæ anticæ subfalcatæ, margine exteriore concavo. *Fœm.* — Antennæ mediocriter pectinatæ, ramis duplicatis inæqualiter longis. Alæ anticæ non falcatæ, margine exteriore recto; posticæ abdomen triente superantes.

Saturnia, p., *Hope.*

Body moderately stout. Proboscis not visible. Palpi very short. Antennæ very much longer than the thorax. Abdomen extending to about two-thirds of the breadth of the hind wings. Legs moderately long and slender; hind tibiæ with two very minute apical spurs. Wings long, moderately broad; ocellus truncate-lunate, with a curved discal vitreous line. Fore wings almost straight in front, rounded at the tips; exterior border very oblique; second inferior vein very much nearer to the first than to the third. *Male.*—Antennæ very deeply pectinated; branches ciliated and in pairs, which are of equal length, and about thirty in number. Abdomen with two tufts at the tip. Fore wings slightly falcate, concave along the exterior border. *Female.*—Antennæ with fewer joints than those of the male; branches in pairs, one in each pair about one-third of the length of the other.

1. Rinaca Zuleika.

Rufo-fusca; antennæ testaceæ; thorax albo bifasciatus; abdomen pallide fuscum; alæ albidæ, margine exteriore fasciisque angulosis fuscis, ocello e fasciis nigris rufis albisque; anticæ apice albæ, plaga basali rufescente, macula subapicali nigra cyanco conspersa; posticæ apud ocellum subroseæ.

Saturnia Zuleika, *Hope, Linn. Trans.* xix, 132, 18, pl. 11, f. 5.

Much resembles *Saturnia Pyri*, but the fore wings are longer and narrower, and consequently more oblique along the exterior border. Head and thorax reddish brown, the latter with two white bands. Antennæ testaceous. Abdomen pale brown. Wings whitish, brown towards the exterior border, and with dark brown zigzag bands. Fore wings with a large reddish brown spot at the base; whitish part speckled with brown; costa very pale yellow, speckled with black; a reddish mark and a larger black blue-speckled spot near the tips, which are white; ocellus lunate, alternately red and white, bordered with black on its exterior side. Hind wings purplish about the ocellus, which is much broader and darker than that of the fore wings, and has two dark brown borders, one round the hyaline mark, the other outermost. Length of the body 15 lines; of the wings 56—63 lines.

a, *b*. Silhet.

Genus 13. PERISOMENA.

Corpus sat robustum. Palpi brevissimi. Pedes validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ mediocriter longæ latæque, non falcatæ, apud costam vix convexæ, apice angulatæ, margine exteriore subrecto perobliquo. *Mas.*— Corpus et pedes pilosissima. Antennæ latissime pectinatæ, corporis dimidio longiores; rami graciles, ciliati, duplicati, æqualiter longi. Alæ posticæ abdomen dimidio superantes.

Saturnia, p., *Boisd.*; *Herr.-Schæff.*

Body moderately stout. Proboscis not visible. Palpi very short. Legs stout; hind tibiæ with two minute apical spurs. Wings moderately long and broad, not falcate, hardly convex in front, nearly rectangular at the tips, nearly straight and very oblique along the exterior border; interior angle distinct, obtuse. *Male.*—Body and legs very pilose. Antennæ extremely deeply pectinated, about two-thirds of the length of the body; branches of equal length, slender, ciliated, in pairs. Abdomen extending to half the breadth of the hind wings. Fore wings less straight along the exterior border than those of the female; second inferior vein more than thrice further from the third than from the first. Hind wings broader in proportion than those of the female.

Group 1.

Fœm. Antennæ subpectinatæ, corporis dimidio breviores; rami non ciliati nec duplicati. Alæ posticæ abdomen paullo superantes.

Female. Antennæ slightly pectinated, not half the length of the body; branches single, not ciliated. Abdomen extending to three-fourths of the breadth of the hind wings. Fore wings with the second inferior vein not twice further from the third than from the first.

1. PERISOMENA CÆCIGENA.

Alis nitidis, carneo-flavescentibus, linea transversa, communi sinuata obscuriore, ocello minore haud pupillato. Statura paullo major S. Carpini; *alis ocello cæco notatis, in posticis minore; margine omnium, antennis, thorace abdomineque flavis, subtus pallide carneis, posterioribus maculis duabus nigris.* Fœmina *a mare differt alis omnibus obscurioribus, lineis saturatioribus.*

Saturnia cæcigena, *Dahl, MSS. Boisd. Eur. Lep. Index Method.* 49. *Duponch. Suppl. God. Lep. France*, iii. 107, pl. 10, f. 1, 2. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 96, 44.

Fiume.

a, *b*. Europe. From M. Becker's collection.

Group 2.

Fœm. Antennæ serratæ, corporis triente breviores, dentibus alternis minimis. Alæ anticæ macula minima vitrea; postica macula parva vitrea, abdomen triente superantes.

Female. Antennæ serrated, not one-third of the length of the body; teeth alternately short and rudimentary. Abdomen extending to two-thirds of the breadth of the hind wings. Fore wings with a very small vitreous spot; second inferior vein less than twice further from the third than from the first. Hind wings with a small vitreous spot; second inferior vein more than twice further from the third than from the first.

2. PERISOMENA SEMICÆCA.

Fœm. *Rufo-cervina; antennæ nigræ; abdomen subluteum; alæ fascia indistincta fuscescente, macula vitrea fusco marginata.*

Female. Reddish fawn-colour. Antennæ black. Abdomen slightly luteous. Wings with a slender indistinct brownish band, which extends from three-fourths of the length of the costa of the fore wings to nearly two-thirds of the interior border of the hind wings; vitreous spot bordered with brown. Hind wings a little paler than the fore wings. Length of the body 11 lines; of the wings 38 lines.

Port Natal. In Mr. Saunders' collection.

14

Genus 14. HYPERCHIRIA.

Corpus pilosum, sat robustum. Proboscis non conspicua. Palpi brevi, pilosi, caput non adæquantes. Antennæ thorace multo breviores. Pedes breves, validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ sat latæ; anticæ supra non ocellatæ, nonnunquam subangustæ et hamatæ, apud costam convexæ; posticæ abdomen superantes, supra sæpissime ocellatæ. *Mas.*—Antennæ mediocriter pectinatæ. *Fœm.*—Antennæ simplices.

Phalæna-Bombyx Attacus, p., *Cram.; Gmel.*
Bombyx, p., *Fabr.; Oliv.*
Hyperchiria, Automeris et Gamelia, *Hübn. Verz. Schmett.* 154, 155.
Io, *Blanch., Gay, Hist. de Chile Zool.* vii. 59. *Boisd.; Herr.-Schæff.*

Body pilose, moderately stout. Proboscis obsolete. Palpi short, pilose, not extending so far as the head. Antennæ much shorter than the thorax. Abdomen not extending so far as the hind wings. Legs short, stout, pilose; hind tibiæ with two minute apical spurs. Wings rather broad. Fore wings with no ocelli above, occasionally rather narrow, sometimes hooked, more or less convex in front. Hind wings with ocelli on the upper side. *Male.*—Antennæ moderately pectinated. *Female.*—Antennæ simple.

North America.

Group 1.

Alæ latæ, non longæ; anticæ vix falcatæ, apud costam convexæ, margine exteriore subrecto vix obliquo.

Abdomen extending to three-fourths of the breadth of the hind wings. Wings broad, not long. Fore wings hardly falcate, convex in front, almost straight and very slightly oblique along the exterior border.

1. Hyperchiria varia.

Mas. *Lutea; antennæ fulvæ; thoracis discus ferrugineus; alæ anticæ litura transversa guttisque discalibus fascia, e lunulis obliqua maculis guttisque exterioribus ferrugineis, macula subtus magna discali nigra albo signata; posticæ apud marginem interiorem rufæ, ocello cinereo pupilla alba, margine nigro et ferrugineo, subtus gutta discali alba fasciaque perangusta exteriore ferruginea.*

Luteous. Antennæ tawny. Disk of the thorax ferruginous. Fore wings with a discal transverse mark, accompanied by dots, a slender oblique band of lunules, and some exterior spots and dots ferruginous; under side with a large black discal spot, whose centre is white. Hind wings red along the interior border, with a large grayish discal ocellus, which has a white mark in its centre and a broad deep black border; beyond it there is a very slender black band and an exterior ferruginous one which joins the interior ferruginous part; under side with a white discal dot and a very

slender exterior ferruginous band. Length of the body 9—10 lines; of the wings 26—28 lines.

a—c. North America?

Var. β. Mas. *Rufa; thorax et abdominis apex lutea; alæ anticæ cervinæ, apud costam luteæ, macula subtus nigra discali albo pupillata; posticæ ocello cinereo albo notato atroque marginato, fasciaque exteriore nigra.*

Male. Red. Thorax and tip of the abdomen luteous. Fore wings fawn-colour, luteous along the costa; under side with a black discal spot, whose centre is white. Hind wings with a large grayish discal ocellus, which has a white mark in its centre and a deep black border; beyond it there is a black band, which is diffuse towards the ocellus. Length of the body 9 lines; of the wings 25 lines.

Fœm. *Caput et thorax ferruginea; alæ anticæ rufo-ferrugineæ, plaga discali fusca strigisque indistinctis fuscescentibus albidisque.*

Thorax dark brown. Abdomen and hind wings red, the latter fawn-colour along the exterior border. *Male.*—Fore wings fawn-colour, with two slender brown bands, and one exterior slender testaceous band; a large subquadrate brownish discal spot between the brown bands. Hind wings with the ocellus fawn-colour, somewhat oblong, with a black white-marked centre and a black outer border. *Female.* — Like the male, with the following exceptions:—Fore wings ferruginous. Hind wings with two exterior brown bands; the black centre of the ocellus accompanied by a like coloured streak on each side.

a. Massachusetts. From Prof. Sheppard's collection.
b. Brazil. From Mr. Mornay's collection.
c. North America. From Mr. Milne's collection.

Mexico.

A. Alæ anticæ vix falcatæ.
  A. Alæ posticæ annulo nullo luteo. - - Metzli, *Sallé.*
  B. Alæ posticæ annulo luteo. - - - rubrescens, *Walk.*
B. Alæ anticæ valde falcatæ. - - - - saturata, *Walk.*

Group 1.

Fœm. Alæ latæ; anticæ acuminatæ, vix falcatæ, apud costam convexæ, margine exteriore recto sat obliquo; posticæ abdomen superantes.

Female. Abdomen extending to three-fourths of the breadth of the hind wings. Wings broad. Fore wings acuminated, hardly falcate, convex in front, straight and rather oblique along the exterior border.

2. Hyperchiria Metzli.

Cervina; abdomen ex parte rubrum; alæ anticæ plaga discali margineque exteriore pallidioribus, guttis nonnullis discalibus nigris; posticæ ocello maximo atro, pupilla cinerea albo conspersa et lineata, fasciis duabus exterioribus, una angusta fusca, altera lata rufescente.

Saturnia Metzli, *Sallé, Rev. et Mag. de Zoologie, 2me Sér.* v.

Fawn-colour. Fore wings slightly falcate, with some blackish transverse streaks from the base to the middle, with an oblique pale band, beyond which is a broad parallel brownish band. Hind wings with a large black round discal spot or eye, which contains a three-forked slender white mark; this eye is half encircled at a short interval with a slender black half ring, and beyond at another short interval with a broad red ring which joins the red on the inner border. Disk of the thorax brown. Abdomen reddish, with a brown stripe.

a. Guatimala. From M. Sallé's collection.
b. ——? From Mr. Milne's collection.

Group 2.

Mas et fœm. Alæ latæ, non longæ; anticæ subfalcatæ antice convexæ, margine exteriore sat obliquo fere recto. *Mas.*—Alæ posticæ abdomen longe superantes. *Fœm.*—Alæ posticæ abdomen perpaullo superantes.

Wings broad, not long. Fore wings slightly falcate, convex in front, rather oblique and almost straight along the exterior border. *Male.*—Abdomen extending to two-thirds of the breadth of the hind wings. *Female.*—Abdomen extending to five-sixths of the breadth of the hind wings.

3. Hyperchiria rubrescens.

Fœm. *Fusca, subtus ferruginea; caput antice et abdomen ferruginea; antennæ fulvæ; alæ anticæ obscure ferrugineæ, fasciis duabus fuscis unaque testacea fusco marginata, maculaque media diffusa nigricante subtus majore nigra albo pupillata; posticæ apud marginem exteriorem rufo-cervinæ fascia perangusta undulosa nigra flavo marginata, ocello fusco pupilla nigra albo conspersa margine atro flavoque, subtus yutta discali alba fasciisque duabus exterioribus fuscis.*

Female. Brown. Head in front, abdomen and under side ferruginous. Antennæ tawny. Legs partly clothed with brown hairs. Fore wings dark ferruginous, paler beneath; an indistinct diffuse blackish spot between two indistinct brown bands; first band near the base; second beyond the middle, traversed very obliquely by a more distinct slender testaceous band, which is bordered with brown on the outer side; under side with a large black discal spot, whose centre is white. Hind wings reddish, fawn-colour along the exterior border, near which there is a very slender undulating black yellow-bordered band; ocellus large, brown, black speckled with white in the middle, and with a deep black and yellow border; under side with a white discal dot and two indistinct exterior brown bands. Length of the body 13 lines; of the wings 38 lines.

a, *b*. Guatimala. From M. Sallé's collection.

The three following specimens may belong to a distinct species; they are larger and darker, and the exterior black band is undulating and more remote from the ocellus.

c Venezuela. From Mr. Dyson's collection.
d. Honduras. From Mr. Dyson's collection.
e. Carraccas. Presented by E. Doubleday, Esq.

Group 3.

Mas. Alæ anticæ longiusculæ, vix latæ, apud costam subconvexæ, apice falcatæ, margine exteriore subunduloso perobliquo.

Male. Fore wings falcate, rather long, hardly broad, somewhat convex in front, slightly undulating and very oblique along the exterior border.

4. HYPERCHIRIA SATURATA.

Mas. *Obscure ferrugineo-fusca, subtus pallide fusca; antennæ fulvæ; abdomen apice pallide fuscum; alæ anticæ fasciis duabus obscurioribus angustis flavo marginatis unaque exteriore undulosa diffusa flavescente, plaga discali transversa obscura flavo marginata, subtus fascia exteriore nigricante ocelloque albo nigro consperso et marginato; posticæ obscure fuscæ, ocello maximo rufo pupilla nigra albo conspersa margine nigro luteoque, subtus gutta discali alba ferrugineo marginata.*

Male. Dark ferruginous-brown, pale brown beneath. Antennæ tawny. Abdomen pale brown at the tip. Fore wings with two darker brown slender yellowish-bordered bands; one near the base; the other very oblique, beyond the discal mark, which is large, transverse, indistinctly darker brown and with a yellowish border; an indistinct undulating diffused yellowish band near the exterior border; under side with a blackish exterior band and a black ocellus, whose centre is white, speckled with black. *Hind* wings mostly very dark brown; ocellus very large, red, with a black slightly white speckled centre and a brownish black border, beyond which there is a luteous circle; exterior border with three bands, the first black, the second red, the outermost tawny; under side with a white discal dot which has a ferruginous border. Length of the body 10 lines; of the wings 36 lines.

a. Mexico. Presented by E. Doubleday, Esq.
b. Mexico. From Mr. Hartweg's collection.

South America.

A. Alæ posticæ ocellatæ.
A. Alæ anticæ margine exteriore non inciso.
a. Alæ posticæ ocello rotundo.
a. Ocellus annulo luteo.
i. Annulus luteus non repandus.
* Alæ posticæ rufescentes.
† Alæ anticæ vix falcatæ.
‡ Alæ anticæ fascia pallida. Salmonea, *Cram.*
‡‡ Alæ anticæ fascia nulla pallida. Arminia, *Cram.*
†† Alæ anticæ valde falcatæ. - Janeira, *Westw.*
** Alæ posticæ fuscæ.

† Alæ anticæ fascia obscuriore. complicata, *Walk.*
†† Alæ anticæ fascia pallidiore. - fusca, *Walk.*
ii. Annulus luteus repandus. - - basalis, *Walk.*
b. Ocellus annulo flavo.
i. Alæ posticæ fascia exteriore duplicata. bilinea, *Walk.*
ii. Alæ posticæ fascia exteriore non duplicata.
* Alæ anticæ fascia pallidiore.
† Alæ anticæ viridescentes. - viridescens, *Walk*
†† Alæ anticæ non viridescentes.
‡ Alæ anticæ fascia sat obliqua.
rubrescens, *Walk.*
‡‡ Alæ anticæ fascia perobliqua.
Nyctimena, *Walk.*
** Alæ anticæ fascia obscuriore. - Armida? *Fabr.*
c. Ocellus annulo albido testaceo. - convergens, *Walk.*
d. Ocellus annulo nec luteo nec pallidiore.
i. Ocellus pupilla flava. - - metapyrrha, *Walk.*
ii. Ocellus pupilla non flava.
* Alæ posticæ fascia nulla exteriore obscura.
Janus, *Cram.*
** Alæ posticæ fascia una exteriore obscura.
† Ocellus pupilla parva rotunda.
‡ Alæ posticæ annulo nullo rubro.
illustris, *Walk.*
§ Alæ posticæ rufescentes.
‡‡ Alæ posticæ annulo rubro.
§ Alæ anticæ fuscæ. - Abas, *Cram.*
§§ Alæ anticæ flavo aurantiacæ.
erythrops, *Blanch.*
§§§ Alæ anticæ ferrugineo variæ.
cinerea, *Walk.*
§§§§ Alæ anticæ nigræ. pyrrhomelas, *Walk.*
†† Ocellus pupilla angulifera.
‡ Alæ anticæ guttis discalibus. - Metea, *Cram.*
‡‡ Alæ anticæ guttis nullis discalibus.
Brasiliensis, *MSS.*
*** Alæ posticæ fasciis duabus exterioribus obscuris.
† Alæ posticæ basi cervinæ. - Larra, *Walk.*
†† Alæ posticæ basi rufo-fulvæ. - Egeus, *Cram.*
††† Alæ posticæ basi roseæ. - cruenta, *MSS.*
†††† Alæ posticæ basi fuscæ. - Memusæ, *MSS.*
††††† Alæ posticæ basi testaceæ. submacula, *Walk.*
†††††† Alæ posticæ late fuscæ. - inornata, *Walk.*
B. Alæ posticæ ocello oblongo.

a. Alæ posticæ fascia exteriore non abbreviato.
i. Ocelli pupilla non divisa.
* Alæ purpureo non variæ. - - oblonga, *Walk.*
** Alæ purpureo variæ. - - - Irmina, *Cram.*
ii. Ocelli pupilla divisa. - - - Liberia, *Cram.*
b. Alæ posticæ fascia exteriore abbreviata. Jucunda, *Cram.*
B. Alæ anticæ margine exteriore inciso.
A. Alæ anticæ valde incisæ. - - - Nausica, *Cram.*
B. Alæ anticæ subincisæ.
a. Alæ anticæ purpureo non vittatæ. - incisa, *Walk.*
b. Alæ anticæ purpureo vittatæ. - - - Io, *Cram.*
B. Alæ posticæ non ocellatæ.
A. Abdomen albido fasciatum. - - - vagans, *MSS.*
B. Abdomen non fasciatum.
A. Abdomen plus minusve ferrugineum aut fulvum.
a. Alæ anticæ fascia undulosa. - approximans, *Walk.*
b. Alæ anticæ fascia nulla undulosa. - - Myops, *MSS.*

Group I.

Fœm. Corpus robustum. Antennæ thorace paullo longiores, setis brevissimis instructæ, non pectinatæ. Alæ latæ; anticæ vix falcatæ, apud costam convexæ, margine exteriore recto vix obliquo; posticæ abdomen trientæ superantes.

Female. Body stout. Antennæ a little longer than the thorax, with rather more than thirty joints, not pectinated, but minutely setose. Abdomen extending to about two-thirds of the breadth of the hind wings. Wings broad. Fore wings hardly falcate, convex in front, straight and hardly oblique along the exterior border; second inferior vein much nearer to the first than to the third.

5. Hyerchiria Janus.

Alæ anticæ variegatæ subtus ocello atro; posticæ sanguineæ ocello atro.

Phalæna-Bombyx Attacus Janus, *Cram. Pap. Exot.* i. 100, pl. 64, f. A. B. *Gmel. ed. Syst. Nat.* i. 5, 2403, 466.

Bombyx Janus, *Fabr. Sp. Ins.* ii. 169, 10; *Mant. Ins.* ii. 109, 11; *Ent. Syst.* iii. 1, 412, 15. *Oliv. Enc. Méth. Ins.* v. 27, 14, pl. 69, f. 7.

Automeris Janus, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*) 154, 1611.

This species may be distinguished from *H. Metzli* by its larger size, by its greenish fore wings, by their two broad irregular bands,

which are partly reddish, partly fawn-coloured, by the slender testaceous band, and by the broad bluish band along the exterior border. The hind wings, with the exception of the ocellus and the contiguous band and the fawn-coloured border, are red.

Surinam.

6. Hyperchiria illustris.

Fœm. *Rufo-cervina; caput et thorax nigro-fusca; antennæ testaceæ; alæ anticæ rufo-fuscæ, gutta centrali lineisque duabus transversis albis, plaga transversa discali fasciisque duabus fuscis, ocello subtus e gutta alba nigro latissime marginato; posticæ ocello fusco pupilla atra albo conspersa et fasciata margine exteriore atro, fasciis tribus angustis exterioribus, una atra, duabus pallidis.*

Female. Head and thorax blackish brown. Antennæ testaceous. Pectus, abdomen and femora reddish fawn-colour. Tibiæ and tarsi brown. Fore wings reddish brown, with an indistinct purplish tinge between the two slender whitish bands, of which the interior one is undulating, bordered with brown along the inner side, and much less oblique than the exterior one, which extends from near each tip (where it is slightly undulating) to much beyond half the length of the interior border, and is bordered with brown on the outer side; this band is accompanied on the outer side by an irregular pale brown band, which in front emits a darker brown fork obliquely across the whitish band; under side reddish fawn-colour, with two darker bands, of which the exterior one is undulating; border mostly cinereous; discal spot large, black, transverse, with a white dot in the middle. Hind wings reddish fawn-colour, with three exterior narrow slightly undulating bands; the first band black, slightly bordered with black on the inner side, accompanied on the outer side by the second, which like the third is somewhat whitish; exterior border slightly cinereous; ocellus pale brown, with a black border and a black centre, the latter sprinkled with white and with a white band; under side mostly cinereous, with a white discal dot, near which there is a straight brown band. Length of the body 16 lines; of the wings 56 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

7. Hyperchiria Salmonea.

Alæ anticæ fuscæ striga atra; posticæ rufæ ocello nigro lunula alba.

Phalæna-Bombyx Attacus Salmonea, *Cram. Pap. Exot.* ii. 101, pl. 162, f. A; iv. 218, pl. 395, f. A. *Gmel. ed. Syst. Nat.* i. 5, 2406, 479.

Bombyx Salmonea, *Fabr. Sp. Ins.* ii. 173, 30; *Mant. Ins.* ii. 110, 35; *Ent. Syst.* iii. 1, 419, 39. *Oliv. Enc. Méth.* v. 37, 47.

Automeris Salmonea, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*, 155, 1613.

Var. α. Reddish brown. Abdomen with red bands. Fore wings with two transverse testaceous discal streaks, and with an exterior slender black band. Hind wings red, with a slender exterior black band, and some indistinct bands nearer the exterior border; ocellus ferruginous, with a brown centre, which contains a white lunule, and with two concentric outward rings, the black inner one much broader than the yellow outer one.

Var. β. Fawn-colour. Abdomen with testaceous bands. Fore wings with the base and two indistinct bands brownish; a broad middle testaceous band, and two slender reddish bands, which converge towards the interior border; the exterior one is bordered with white on the inner side, and they contain a large irregular discal reddish ringlet. Hind wings testaceous, with four exterior bands; first band dark brown, slender; second white, slender; third pale brown, rather broad; fourth whitish, rather broad; ocellus black, with a white-sprinkled centre, which is sprinkled with white and is bordered with red; the black has an incomplete red and white border.

Surinam.

Group 2.

Fœm. Corpus robustum. Antennæ thorace paullo longiores, setis brevissimis instructæ, non pectinatæ. Alæ latiusculæ; anticæ apice angulatæ non falcatæ, apud costam convexæ, margine exteriore subconvexo sat obliquo; posticæ abdomen perpaullo superantes.

Female. Body stout. Antennæ a little longer than the thorax, with rather more than thirty joints, not pectinated, but minutely setose. Abdomen extending almost as far as the hind wings. Wings moderately broad. Fore wings almost rectangular and not falcate at the tips, convex in front; exterior border rather oblique, very slightly concave; second inferior vein about thrice further from the third than from the first.

8. Hyperchiria Egeus.

Fœm. *Ferruginea; abdomen rufo-fulvum; alæ anticæ basi albæ, strigis tribus subpurpureis, fascia discali angusta recta obliqua cinerea, lineaque exteriore angulosa albida; posticæ albidæ, basi rufo-fulvæ, fasciis duabus exterioribus nigris, margine exteriore ferrugineo; ocellus pupilla margineque atris.*

Phalæna-Bombyx Attacus Egeus, *Cram. Pap. Exot.* i. 100, pl. 64, f. C.

Bombyx Egeus, *Oliv. Enc. Méth. Ins.* v. 35, 40.

Automeris Egea, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*) 155, 1617.

Surinam.

Female. Ferruginous, paler beneath. Antennæ tawny. Abdomen reddish tawny. Fore wings with three slightly purplish short discal bands, the first and the second connected hindward, and, like the third, resting on a more oblique slender straight cinereous band; a whitish narrow zigzag band near the exterior border; a whitish transverse streak at the base, and a whitish dot in the disk; under side with a brown transverse discal spot and two exterior brown bands. Hind wings whitish, pale reddish tawny at the base, ferruginous along the exterior border, with two black bands, the exterior one broad, the interior one narrow and partly connected with the ocellus, which is deep black, with a whitish central ringlet; under side ferruginous, with a white discal dot and with two brown bands, of which the interior one is contiguous to the dot. Length of the body 20 lines; of the wings 54 lines.

a. Parà. Presented by J. P. G. Smith, Esq.

Group 3.

Fœm. Antennæ thorace paullo longiores. Alæ longiusculæ vix latæ; anticæ acuminatæ vix falcatæ, apud costam subconvexæ, margine exteriore perobliquo subrecto; posticæ abdomen triente superantes.

Female. Antennæ a little longer than the thorax. Abdomen extending to two-thirds of the breadth of the hind wings. Wings rather long, hardly broad. Fore wings acutely angular, but hardly falcate at the tips, slightly convex in front, almost straight and very oblique along the exterior border; second inferior vein much further from the third than from the first.

9. Hyperchiria fusca.

Fœm. *Fusca, subtus pallidior; antennæ testaceæ; alæ anticæ annulo oblongo discali fasciisque duabus lineariibus postice approximatis fasciaque diffusa marginali testaceis, macula subtus nigra albido notata; posticæ fascia tenui undulosa exteriore obscure fusca, margine exteriore testaceo; ocellus cervinus annulo discoque nigris annuloque exteriore luteo.*

Female. Brown, paler beneath. Antennæ testaceous. Fore wings with a large transverse oblong testaceous ringlet between two slender testaceous bands, which approach very near to each other on the anterior border; a diffuse undulating testaceous band along the exterior border; under side with a large black discal spot, which contains a whitish black-sprinkled ringlet. Hind wings with two slender undulating bands near the exterior border, which is testaceous; inner band dark brown, narrower than the outer one, which is pale brown; ocellus with a black centre, whose borders are slightly and imperfectly marked with white,—it is encircled by a pale brown ringlet, to which succeed a black ringlet and a luteous ringlet; under side with a white discal dot. Length of the body 12 lines; of the wings 44 lines.

a. South America. Presented by E. Doubleday, Esq.

Group 4.

Mas et fœm. Corpus robustum. Antennæ thorace non longiores. Alæ latæ; anticæ apud costam convexæ, margine exteriore mediocriter obliquo; posticæ abdomen triente superantes. *Mas.*—Antennæ late pectinatæ, ramis duplicatis inæqualiter longis. Alæ anticæ falcatæ, margine exteriore subunduloso. *Fœm.*—Antennæ brevissimi setosæ, non pectinatæ. Alæ anticæ subfalcatæ, margine exteriore recto.

Male and female. Body stout. Antennæ not longer than the thorax. Abdomen extending to full two-thirds of the breadth of the hind wings. Wings broad. Fore wings convex along the costa; exterior border moderately oblique; second inferior vein about thrice further from the third than from the first. *Male.*—Antennæ deeply pectinated; one branch in each pair slender, and a little shorter than the other, which is stout and ciliated. Fore wings falcate; exterior border slightly undulating. *Female.*—Antennæ minutely setose, not pectinated. Fore wings hardly falcate; exterior border straight.

10. Hyperchiria bilinea.

Mas et fœm. *Rufescens; antennæ fulvæ; thorax fuscus; alæ anticæ pallide fuscæ, basi albidæ, lineis duabus transversis albidis, fascia intermedia diffusa antice dilatata pallide purpurascente, macula discali transversa strigaque lata brevi antica exteriore fuscis, macula subtus discali nigra; posticæ fascia exteriore tenui duplicata flavo-nigra, margine exteriore pallide fusco, gutta subtus alba; ocellus pallide fuscus, pupilla nigra albo conspersa, annulo exteriore flavo nigro marginato.*

Male and female. Reddish. Vertex of the head and thorax brown. Palpi brown, testaceous beneath. Antennæ tawny. Legs brown above. Wings fawn-colour beneath. Fore wings pale brown, whitish at the base, and with two slender whitish bands; interior band angular, almost upright; exterior band oblique, curved; an intermediate diffused pale purplish band, which is dilated in front, and there contains a transverse discal brown spot, and a more exterior subcostal short broad brown band; under side with a black spot, which has a whitish centre, and corresponds to the brown spot above. Hind wings with a slender undulating exterior yellow band, which is intersected and bordered on the inner side with black; exterior border pale brown; ocellus pale brown, with a black white-sprinkled centre, and with a yellow exterior ringlet, which is bordered on each side with black; under side with a white discal dot, and a contiguous indistinct pale brown band. Length of the body 12—15 lines; of the wings 38—44 lines.

a. Brazil. From Mr. Stevens' collection.
b. Parà. Presented by Gordon Graham, Esq.

11. Hyperchiria Armida.

Mas. *Ferruginea; alæ anticæ fuscæ, plaga discali fasciisque duabus fuscis, plaga posteriore fulva, strigaque postica marginali testacea; posticæ rufescentes, ocello atro pupilla linea angulata atomisque albis, annulo luteo, fasciisque tribus exterioribus, fascia 1a nigra, 2a rufa, 3a testacea.*

Bombyx Armida? *Fabr. Mant. Ins.* ii. 109, 24; *Ent. Syst.* iii. 1, 415, 29. *Oliv. Enc. Méth. Ins.* v. 31, 31.

Phalæna-Bombyx Attacus Armida, *Gmel. ed. Syst. Nat.* i. 5, 2407, 483. *Alæ flavæ, atomis maculis strigaque postica violaceis.*

Phalæna-Bombyx Attacus Arminia, *Cram. Pap. Exot.* iv. 127, pl. 356, f. D.

Hyperchiria Arminia, *Hübn. Verz. Schmett.* 155, 1619.

Male. Body ferruginous. Fore wings brown, with two white dots at the base, with a large oblong transverse dark brown spot in the disk, and with two dark brown bands, which converge towards the interior border, near which they include a tawny mark; a broad testaceous streak by the hind part of the exterior border. Hind wings reddish, with a black ocellus, which has a pupil with white dots and an angular white streak, and a luteous border; three exterior bands, the first black, the second ferruginous red, the third testaceous.

Surinam.

Group 5.

Alæ anticæ subfalcatæ, sat longæ, apud costam subconvexæ, margine exteriore obliquo. *Mas.*—Alæ anticæ apud marginem exteriorem subconcavæ; posticæ abdomen paullo superans. *Fœm.*—Alæ anticæ apud marginem exteriorem rectæ; posticæ abdomen perpaullo superans.

Fore wings slightly falcate, rather broad and long, slightly convex in front, oblique along the exterior border. *Male.*—Abdomen extending to three-fourths of the breadth of the hind wings. Fore wings very slightly concave along the exterior border. *Female.*—Abdomen extending to five-sixths of the breadth of the hind wings. Wings straight along the exterior border.

12. Hyperchiria Nyctimena.

Cinereo-fusca aut ferruginea; abdomen supra fuscescens; alæ anticæ testaceo trifasciatæ, macula discali ferruginea testaceo marginata subtus nigra albo notata; posticæ fuscæ, apud marginem exteriorem cervinæ, fascia duabus una nigra altera rufa, ocello rufo maculis quatuor albis nigro conspersis pupilla nigra, margine atro testaceoque.

Grayish brown or ferruginous. Abdomen brownish above. Fore wings with three testaceous bands; first band near the base, undulating; second very oblique, bordered with brown on the outer side, very near the discal spot; third exterior, irregular; discal spot large, transverse, nearly elliptical, more or less dark ferruginous,

with a testaceous border, black, with a white centre on the under side. Hind wings dark brown, pale fawn-colour along the exterior border, near which there is a very slender undulating black band, and a broader red band; discal ocellus red, very large, bordered with deep black and with testaceous, and having four white black-speckled spots round the centre, which is black. Length of the body 13—18 lines; of the wings 44—54 lines.

a. Colombia. From M. Becker's collection.
b, *c*. Quito. Presented by M. Bourcier.
d. Santa Fé de Bogotà. From Mr. Isaacson's collection.

Group 6.

Mas. Alæ anticæ vix falcatæ, apud costam convexæ, apice fere rotundatæ, margine exteriore perobliquo subrecto; posticæ abdomen vix superantes.

Male. Abdomen extending nearly as far as the hind wings. Fore wings hardly falcate, convex in front, nearly rounded at the tips, almost straight, and very oblique along the exterior border.

13. HYPERCHIRIA METEA.

Mas. *Ferruginea, subtus testacea; abdomen testaceum nigro fasciatum; alæ anticæ fasciis duabus angulosis fuscescentibus maculaque transversa pallide fusca discali e guttis nigricantibus marginato, gutta subtus alba nigro marginata; posticæ ocello albo pupillato testaceo marginato.*

——— ———, *Merian, Ins. Surin.* pl. 6, f. 1.
Phalæna-Bombyx Attacus Metea, *Cram. Pap. Exot.* iv. 27, pl. 304, f. A.
Automeris Metea, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1618.

Phalæna Attacus Irene, *Cram. Pap. Exot.* iii. 96, pl. 249, f. B. C.
Automeris Irene, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1615.

Surinam.

Male. Ferruginous, testaceous beneath. Antennæ tawny. Abdomen testaceous, with blackish bands. Fore wings with two slender, indistinct, zigzag brownish bands; one near the base, the other very oblique, beyond the discal spot, which is transverse and pale brown,

and is surrounded by blackish dots; under side with a white black-bordered dot. Hind wings with two bands towards the exterior border; first band undulating, very slender; second broader, ferruginous; ocellus large, deep black, with a white mark in its middle, and a testaceous border. Length of the body 13 lines; of the wings 36 lines.

a. Bolivia. From Mr. Bridges' collection.
b. Brazil. From Mr. Mornay's collection.
c. Brazil. From M. Becker's collection.

14. Hyperchiria Brasiliensis.

Alæ anticæ basi albæ, fasciis duabus fuscescentibus unaque testacea fusco marginata, macula discali transversa fusco marginata subtus nigra albo notata; posticæ apud marginem exteriorem testaceæ, fasciis duabus una rufa altera nigra, ocello nigro testaceo marginato signaque albo interlineata notata. Mas.—*Ferruginea.* Fœm.—*Cervina; antennæ testaceæ.*

Io Brasiliensis, *MSS.*

Fore wings white at the base, with two indistinct brownish bands bands, and with a more distinct and oblique testaceous band, which is bordered with brown on the outer side; discal spot transverse, irregular, like the rest of the wing in colour, but with a brown border, which is occasionally obsolete; under side with the discal spot black or blackish, with a white centre. Hind wings testaceous along the exterior border, near which there is a red band and a black band, the latter much more slender than the former; discal ocellus large, black, with a testaceous border, and containing an irregular brownish mark, which is interlined with white. *Male.*—Ferruginous. *Female.*—Fawn-colour. Antennæ testaceous. Length of the body 9—13 lines; of the wings 32—48 lines.

a, *b*. Brazil. From Mr. Argent's collection.
c. Brazil. From Mr. Tucker's collection.
d. Brazil.

15. Hyperchiria Liberia.

Mas. *Luteo-cervina; thorax nigro-fuscus; alæ anticæ cervinæ, fasciis nonnullis obscurioribus et pallidioribus, macula oblonga transversa discali fuscescente; posticæ ocello cervino, pupilla nigra albo varia, annulo fasciaque exteriore nigris.*

Automeris Liberia, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* i. *Sphing.* v. *Echidnæ* D. *Recondentes*, 4, f. 3, 4. *Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1614.

Phalæna-Bombyx Attacus Liberia, *Cram. Pap. Exot.* iii. 33, pl 268, f. F. G. *Gmel. ed. Syst. Nat.* i. 5, 2406, 476.

Bombyx Liberia, *Fabr. Sp. Ins.* ii. *Append.* 505; *Mant. Ins.* ii. 110, 30; *Ent. Syst.* iii. 1, 418, 35. *Oliv. Enc. Méth. Ins.* v. 35, 42.

——— ———, *Merian, Ins. Surin.* pl. 12.

Surinam.

Male. Luteous fawn-colour. Thorax dark brown. Fore wings fawn-colour, with some more or less indistinct darker and paler bands, of which two converge towards the interior border, and are more distinct than the others; a large oblong transverse brownish discal spot. Hind wings with a fawn-coloured ocellus; its centre black, marked with white, and most often elongated or divided; a black ringlet and a slender exterior hardly undulating black band. Length of the body 12—15 lines; of the wings 30—40 lines.

a. Carraccas. Presented by E. Doubleday, Esq.
b. Venezuela. From Mr. Dyson's collection.
c. Brazil. From M. Becker's collection.

Group 7.

Alæ latissimæ; anticæ subfalcatæ, apud costam convexæ, apice angulatæ, margine exteriore fere recto vix obliquo.

Wings very broad. Fore wings very slightly falcate, convex along the costa, angular at the tips, almost straight and very slightly oblique along the exterior border.

16. Hyperchiria Larra.

Fusca; antennæ testaceæ; abdomen ferrugineo-rufum; alæ anticæ subglaucescentes, strigis nonnullis maculaque magna oblonga discali transversis obscurioribus, basi albidæ; posticæ ocello fusco nigro marginato, pupilla nigra albo conspersa. Mas.—*Alæ posticæ cinereo-cervinæ, basi ferrugineo-rufæ, fasciis duabus exterioribus, nigris.* Fœm.—*Alæ posticæ ferrugineo-rufæ fasciis duabus exterioribus, 1a perangusta undulosa nigra, 2a latiore cinerea marginali.*

Brown. Antennæ testaceous. Abdomen ferruginous-red, with a slight glaucous tinge, traversed by some indistinct darker streaks,

and with a large indistinct transverse oblong discal spot; a more distinct very narrow band proceeds from the tip to two-thirds of the length of the interior border; base whitish. *Male.*—Hind wings cinereous fawn-colour, ferruginous towards the base, with a very large brown ocellus bordered with black, and with a black white-marked central dot; two broad exterior black bands, the outer one broader than the other, and with an undulating exterior border. *Female.*—Fore wings paler than those of the male. Hind wings ferruginous-red; ocellus paler than that of the male, the central white mark more distinct; a single very slender exterior undulating black band, and a broader cinereous marginal band, whose inner border is hoary. Length of the body 12—16 lines; of the wings 40—48 lines.

a. Brazil. Presented by W. W. Saunders, Esq.
b, *c*. Rio Janeiro. From Mr. Stevens' collection.

Group 8.

Mas. Palpi breves, validi, pilosissimi, caput perpaullo superantes. Alæ latæ, anticæ vix falcatæ, apud costam vix convexæ, margine exteriore obliquo subrecto; posticæ abdomen perpaullo superantes.

Male. Palpi short, stout, very pilose, extending a little beyond the head. Abdomen not extending quite so far as the hind wings. Wings broad. Fore wings very slightly convex along the costa, nearly rectangular and hardly falcate at the tips, oblique and almost straight along the exterior border; interior angle much rounded; three inferior veins; second much nearer to the first than to the third.

17. Hyperchiria convergens.

Mas. *Fusca; antennæ testaceæ; abdominis segmenta luteo fasciata, apex albido-testacea; alæ anticæ apud discum rufescentes, fasciis tribus albido-testaceis, macula discali transversa elongata obscure fusca albido-testaceo marginata; posticæ rufæ, apud marginem exteriorem fuscæ fasciis duabus albido testaceis, ocello atro pupilla alba margine albido-testaceo, subtus fuscescentes fasciis duabus fuscis guttaque discali alba.*

Male. Brown. Antennæ testaceous. Abdomen with a luteous band on the hind border of each segment; tip whitish testaceous.

Fore wings reddish in the disk, with three whitish testaceous bands; first band at one-third of the length, upright, hardly undulating, slightly bordered with brown on both sides; second and third bordered with brown on the outer side; second forming an acute angle near the costa, extending from five-sixths of the length of the wing to the interior border, which it joins very near the first, very slightly curved; third slightly undulating, very near the exterior border; a transverse dark brown elongated discal spot, with a whitish testaceous border; under side mostly covered with whitish hairs, with a single slender oblique brown band, which joins a brown spot at the tip of the costa, and with a transverse discal brown spot, which has a white dot in its middle. Hind wings red, brown for full one-third of the length from the exterior border; this brown part has a whitish testaceous fringe, and includes two curved bands of the same colour; a large deep black discal ocellus, with a very minute white mark in its centre, and with a whitish testaceous border; under side brownish, thickly sprinkled with white, with two curved brown bands, and with a white discal dot. Length of the body 9 lines; of the wings 24 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 9.

Mas et fœm. Antennæ thoracis longitudine. Alæ latæ; anticæ non falcatæ, apud costam convexæ, apice acuminatæ, margine exteriore recto parum obliquo. *Mas.*—Antennarum rami subæqualiter longi. Alæ posticæ abdomen dimidio superantes. *Fœm.*—Alæ posticæ abdomen paullo superantes.

Male and female. Antennæ as long as the thorax. Wings broad. Fore wings angular, but not falcate at the tips, convex in front; exterior border straight, slightly oblique; second inferior vein much nearer to the third than to the first. *Male.*—Antennæ with one branch in each pair, much more slender, but very little shorter than the other, which is ciliated. Abdomen extending to half the breadth of the hind wings. *Female.*—Abdomen extending to five-sixths of the breadth of the hind wings.

18. Hyperchiria oblonga.

Mas et fœm. *Alæ anticæ macula discali transversa obscuriore, margine exteriore fasciisque duabus pallidioribus, fascia 1a angulosa, 2a obliqua; posticæ fasciis duabus exterioribus, ocello oblongo pupilla annuloque nigris, illa albo notata.* Mas. — *Cervina, luteo varia.* Fœm. — *Ferruginea, cervino varia.*

Male and female. Fore wings with an oblong transverse brownish discal spot, and with two pale luteous narrow bands; interior band zigzag; exterior one oblique, nearly straight; under side with a white black-encircled discal spot. Hind wings with two exterior undulating bands, and an oblong fawn-coloured ocellus, which has a black exterior ringlet and a black elongated central spot; the latter containing a transverse white mark; under side with a white discal dot, near the outer side of which there is a narrow pale brownish band. *Male.*—Luteous fawn-colour. Fore wings with a hoary tinge along the costa; exterior border with a pale luteous band, which is angular along the inner side. Hind wings pale luteous on the exterior half; inner band pale brown; outer one pale fawn-colour. *Female.*—Fawn-colour. Head, thorax, legs and fore wings mostly ferruginous. Fore wings with a hoary tinge between the two discal bands; marginal band pale fawn-colour, angular along the inner side. Hind wings with the inner band dark brown, the outer one pale ferruginous. Length of the body 10—16 lines; of the wings 36—44 lines.

a, *b*. Santa Fé de Bogotà. From M. Parzudaki's collection.

19. Hyperchiria jucunda.

Mas. *Flavo-lutea; alæ ferrugineæ, anticæ fasciis tribus maculaque discali luteis maculaque cinerea; posticæ pupilla nigra albo conspersa, annulo oblongo fasciaque brevi nigris, margine exteriore luteo.* Fœm.?—*Ferruginea; abdomen rufum; alæ anticæ linea albida, margine exteriore nigricante; posticæ rufæ, ocello nigro-fusca, pupilla albo conspersa, annulo oblongo luteo, fascia una nigra albido conspersa alteraque exteriore rubro.*

Phalæna-Bombyx Attacus jucunda, *Cram. Pap. Exot.* iii. 96, pl. 249, f. A; iv. 127, pl, 356, f. B, C.

Automeris jucunda, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*) 155, 1616.

Male. Yellowish luteous. Wings ferruginous. Fore wings with a luteous discal spot, whose inner side joins a gray one, and with three luteous bands; first band rather broad, between the base and the spot; second and third narrow; second turning to gray in front; third emitting luteous streaks to the exterior border.

Surinam.

Group 10.

Mas et fœm. Alæ latæ; anticæ apud costam subconvexæ; posticæ abdomen paullo superantes. *Mas.*—Antennæ late pectinatæ, thorace non longiores, ramis duplicatis inæqualibus. Alæ anticæ apice subrotundatæ, non falcatæ, margine exteriore recto subobliquo. *Fœm.*—Antennæ thorace paullo longiores. Alæ anticæ subfalcatæ, margine exteriore obliquo subrecto.

Male and female. Wings broad. Fore wings slightly convex in front; second inferior vein further from the third than from the first. Hind wings extending a little beyond the abdomen. *Male.*—Antennæ not longer than the thorax; one branch in each pair slender and a little shorter than the other, which is stout and ciliated. Fore wings somewhat rounded at the tips, not falcate; exterior border straight, slightly oblique. *Female.*—Antennæ a little longer than the thorax. Fore wings acute and slightly falcate at the tips; exterior border almost straight, moderately oblique.

20. HYPERCHIRIA BASALIS.

Mas et fœm. *Fusca, subtus cervina; alæ anticæ striga transversa basali pallida, strigis discalibus transversis fasciaque obliqua obscuriore fuscis, gutta subtus discali alba nigro marginata; posticæ pallidiores, fasciis duabus exterioribus obscurioribus; ocellus fuscus, pupilla annuloque exteriore atris, illa albo conspersa.* Mas.—*Abdomen roseum; alæ anticæ albido-fuscæ, striga basali flava; posticæ apud discum flavæ, margine exteriore subroseo.* Fœm.—*Abdomen fulvum, fusco fasciatum; alæ anticæ striga basali alba, posticæ apud discum luteæ, margine interiore fuscescentes.*

Male. Brown, fawn-colour beneath. Antennæ testaceous. Abdomen rosy. Wings beneath with two exterior pale very indistinct brownish bands. Fore wings mostly pale whitish brown, brown towards the base (where there is a transverse yellow streak), and with some transverse brown marks; a nearly straight slender darker brown band extends from each tip to the middle of the interior

border; under side with a white discal dot, which is surrounded by a black ringlet. Hind wings pale brown, somewhat rosy along the interior border, yellow about the ocellus, and with two curved exterior bands; the inner band black, narrower than the other, which is brown; ocellus brown, with the centre and the outer ringlet deep black, the former sprinkled with white; under side with a white discal dot. Length of the body 11 lines; of the wings 28 lines.

Female. Abdomen tawny, with brown dorsal bands. Wings rather darker than those of the male. Fore wings with a white basal transverse streak. Hind wings brownish along the interior border, luteous about the ocellus. Length of the body 9—13 lines; of the wings 29—40 lines.

Var. β. Ferruginous instead of brown.

a, *b*. Venezuela. From Mr. Dyson's collection.
c, *d*. Rio Janeiro. From Mr. Stevens' collection.
e. Brazil. From M. Becker's collection.

21. Hyperchiria Irmina.

Mas. *Alæ subfalcatæ, margine exteriore fulvo; anticæ ferrugineæ, striga angulata basim versus fulva, gutta discali nigra luteo cincta, plaga postica subquadrata purpurea, alteraque exteriore cinerea, fasciaque tenui exteriore nigra albido-interlineato; posticæ testaceæ, fascia intus dilatata cinerascente, ocello rufo, margine nigro, pupilla flava.*

Phalæna-Bombyx Attacus Irmina, *Cram. Pap. Exot.* iv. 125, pl. 355, f. C. D.
Bombyx Irmina, *Oliv. Enc. Méth. Ins.* v. 37, 50, pl. 70, f. 9.
Gamelia Irmina, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1622.

Surinam.

Group 11.

Fœm. Alæ mediocriter latæ; anticæ non falcatæ, apud costam convexæ, apice angulatæ, margine exteriore recto perobliquo; posticæ abdomen non superantes.

Female. Abdomen extending as far as the hind wings. Wings moderately broad. Fore wings not falcate, convex in front, angular at the tips, straight and very oblique along the exterior border.

22. HYPERCHIRIA CRUENTA.

Fœm. *Pallide fusca; thorax postice roseus; abdomen obscure fuscum, fasciis dorsalibus luteis; tarsi apice rosei; alæ anticæ fasciis tribus angustis canis maculisque duabus fuscis, 1a basali, 2a discali obscuriore subquadrata cano marginata; posticæ pallide cervinæ basi roseæ, ocello atro fusco-trimarginato pupilla albo conspersa, subtus fascia media fere recta obscure fusca.*

Io cruenta, *MSS.*

Female. Pale brown. Thorax rosy hindward. Abdomen dark brown, with luteous dorsal bands. Tarsi with rosy tips. Fore wings with a large dark brown spot near the base; three slender hoary bands; the first adjoining the brown spot; the second beyond the discal spot, slightly curved, abruptly retracted towards the costa; the third irregular, near the exterior border; discal spot large, blackish brown, irregularly subquadrate, with a hoary border. Hind wings pale fawn-colour, rosy towards the base; discal ocellus large, deep black, with a white-powdered centre; three exterior bands; first slender, blackish brown; second and third brown; third marginal, broader than the second; under side with a middle nearly straight dark brown band. Length of the body 10½ lines; of the wings 29 lines.

a, *b*. Rio Janeiro. From Mr. Stevens' collection.
c. Brazil. From M. Becker's collection.

Group 12.

Alæ posticæ abdomen non superantes. Alæ anticæ margine exteriore subobliquo. *Mas.*—Alæ anticæ falcatæ, apud costam convexæ, margine exteriore concavo. *Fœm.*—Alæ anticæ vix falcatæ, apud costam subconvexæ, margine exteriore recto.

Abdomen extending as far as the hind wings. Fore wings with the exterior border slightly oblique. *Male.*—Fore wings falcate, convex in front, concave along the exterior border. *Female.*—Fore wings hardly falcate, slightly convex in front, straight along the exterior border.

23. Hyperchiria Memusæ.

Murina; antennæ testaceæ; alæ anticæ fasciis duabus angustis pallide testaceis, macula discali transversa testacea nigro notata fusco marginata, fascia undulosa fusca, venis exterioribus testaceis, ocello subtus nigro albo pupillato; posticæ rufescentes, ocello atro strigis testaceis annulisque marginalibus testaceis rufis nigris albisque, fascia exteriore undulosa nigra alteraque latiore fusca, margine exteriore testaceo, ocello subtus parvo albo ferrugineo marginato. Mas.—*Abdomen ferrugineo fasciatum.* Fœm.—*Rufescens. Abdomen supra ferrugineum.*

Io Memusæ, *MSS.*

Mouse-colour. Antennæ testaceous. Fore wings with two pale testaceous slender bands, which converge much towards the interior border; between them there is an indistinct transverse testaceous black-marked spot, which has a very broad brown border; the outline of the latter is testaceous and irregular; an undulating brown band between the outer testaceous band and the exterior border; exterior veins pale testaceous: under side with a black ocellus, which has a white centre. Hind wings with a reddish tinge; discal ocellus very large, its central part deep black, intersected by two testaceous streaks, and with an irregular and incomplete testaceous border, which colour is varied with red, black and white; the exterior part of the ocellus is deep red, speckled with black, next wholly deep black, and the outermost border testaceous; between the latter and the exterior border, which is testaceous, there is a slender undulating black band, and a broader brown band; under side with a small white reddish-brown bordered ocellus. *Male.*—Paler than the female. Abdomen with ferruginous bands. *Female.*—With a reddish tinge. Abdomen ferruginous above. Length of the body 9—11 lines; of the wings 26 34 lines.

Brazil. In Mr. Saunders' collection.

Group 13.

Fœm. Alæ anticæ longiusculæ, non latæ, apud costam subconvexæ, apice acuminatæ, margine exteriore recto obliquo; posticæ abdomen perpaullo superantes.

Female. Abdomen extending to five-sixths of the breadth of the hind wings. Fore wings rather long, not broad, slightly convex in front, acuminated at the tips, straight and oblique along the exterior border.

24. Hyperchiria cinerea.

Fœm. *Cinerea; corpus subferrugineum; antennæ rufescentes; tarsi subtus testacei; alæ apud marginem exteriorem pallidiores; anticæ apud costam ex parte ferrugineæ, cano bifasciatæ, macula discali pallide cinerea, ocello subtus nigro albo pupillata; posticæ fascia exteriore cano fusco, ocello rufo, margine pupillaque nigris, hac albo notata, gutta subtus alba fusco marginata.*

Female. Cinereous. Body slightly ferruginous. Antennæ reddish. Tarsi testaceous beneath. Wings very pale gray along the exterior border. Fore wings ferruginous in front; two very slender hoary bands; one undulating, near the base; the other nearly straight, very oblique, beyond the discal spot, which is very pale gray; under side with a black ocellus, which has a white centre. Hind wings with a very slender hoary and dark brown band beyond the ocellus, which is large and red, with a black border, and a blackish centre, which contains a white dot; under side with a white brown-bordered dot. Length of the body 10 lines; of the wings 36 lines.

Brazil. In Mr. Saunders' collection.

25. Hyperchiria pyrrhomelas.

Mas. *Nigra, subtus rufescens; antennæ fulvæ; abdomen apice luteum; alæ anticæ extus cinereæ linea recta obliqua duplicata nigra, annulo discali cinereo; posticæ pallide cinereæ; fascia margineque lato exteriore nigris; ocellus ruber pupilla alba margine atro.*

Male. Black, reddish beneath. Antennæ bright tawny. Abdomen luteous towards the tip. Legs black above, reddish beneath. Wings with reddish ciliæ. Fore wings dark gray exteriorly, with a slender straight oblique double black band, and with a small gray discal ringlet, which is black beneath. Hind wings very pale gray, with two black bands, the first slender, the second broad and marginal; ocellus deep red, with a white centre and a deep black border; under side with a black whitish bordered discal dot, and a straight slender exterior transverse whitish band. Length of the body 10 lines; of the wings 34 lines.

Santa Fé de Bogotà. In Mr. Saunders' collection.

Group 14.

Mas. Alæ anticæ vix falcatæ, apud costam convexæ, margine exteriore obliquo recto; posticæ abdomen non superantes.

Male. Abdomen extending as far as the hind wings. Fore wings hardly falcate, convex in front, straight and oblique along the exterior border.

26. HYPERCHIRIA INORNATA.

Mas. *Pallide fusca; antennæ fulvæ; abdomen luteo fasciatum; alæ anticæ fusco trifasciatæ, gutta alba annuloque oblongo transverso discalibus; posticæ fasciis duabus ocelloque fuscis, hoc albo pupillato.*

Male. Pale brown. Antennæ tawny. Abdomen with luteous bands above. Legs partly clothed with black hairs. Fore wings with an undulating brown band near the base; a large irregular transverse oblong brown discal ring, which has a white dot in its centre; a narrow curved dark brown band extending from the tip to half the length of the interior border, and along the outer side of this band a broad brown band, which is attenuated in front and has a very irregular hoary exterior margin; under side partly hoary hindward. Hind wings with a large brown ocellus, which has a white mark in its centre, and with two exterior brown parallel curved bands; under side with a more straight brown band, which is in contact with the white discal dot, and with an undulating pale brown exterior band. Length of the body 11 lines; of the wings 29 lines.

a, *b*. Brazil. From M. Becker's collection.
c. Brazil. Presented by E. Doubleday, Esq.

Group 15.

Mas. Alæ anticæ mediocriter latæ, non falcatæ, apud costam subconvexæ, apice rotundatæ, margine exteriore subrecto perobliquo; posticæ abdomen paullo superantes.

Male. Abdomen extending to three-fourths of the breadth of the hind wings. Fore wings moderately broad, not falcate, slightly convex in front, rounded at the tips, nearly straight and very oblique along the exterior border.

27. HYPERCHIRIA SUBMACULA.

Mas. *Pallide cervina; abdomen supra rufo-cervinum; alæ anticæ ocello subtus rufescente albo pupillato nigroque marginato; posticæ flavæ fusco conspersæ, cervino marginatæ, fasciis duabus exterioribus una fusca undulosa altera albida incompleta, ocello cervino purpureo atroque marginato albo pupillato.*

Male. Pale fawn-colour. Abdomen above reddish fawn-colour. Fore wings beneath with a pale reddish ocellus, which has a whitish mark in the centre and a black border. Hind wings yellow, sprinkled with brown beyond the ocellus, especially towards the margin, which is fawn-colour; ocellus fawn-colour, with a white mark in the centre and a purple border, which is again bordered with deep black; a slender dark brown undulating outer band, and an incomplete whitish one very near the exterior border; under side with no ocellus or bands. Length of the body 12 lines; of the wings 38 lines.

Brazil. In Mr. Saunders' collection.

Group 16.

Mas. Palpi pilosi, brevissimi, caput non adæquantes. Alæ sat latæ; anticæ subfalcatæ, apud costam subconvexæ, margine exteriore unduloso; posticæ abdomen non superantes.

Male. Palpi pilose, very short, not extending so far as the head. Abdomen extending as far as the hind wings. Wings moderately broad. Fore wings slightly convex along the costa, slightly falcate at the tips, undulating along the exterior border; interior angle much rounded; three inferior veins; second much further from the third than from the first.

28. HYPERCHIRIA VIRIDESCENS.

Mas. *Viridescens; antennæ lutescentes; alæ anticæ flavo trifasciatæ, ocello subtus atro albo conspersо; posticæ apud discum subpurpurascentes, ocello fusco, margine nigro flavoque, pupilla testaceo maculis tribus atris albo ex parte marginatis, subtus gutta alba.*

Male. Pale dull green. Antennæ pale luteous. Abdomen with some testaceous hairs at the tip. Fore wings with two slender yellow bands; the first upright, at one-fourth of the length; the

second oblique, slightly bordered on the outer side with black, extending from near the tip of the costa to a little before the middle of the interior border; under side with a very large deep black discal ocellus, whose disk is flecked with white. Hind wings with a slight purplish tinge beyond the ocellus, which is brown, very large, bordered with black and yellow, and has a testaceous disk which contains three deep black partly white-bordered spots, a small one on each side of the large one; under side with a white discal dot. Length of the body 9 lines; of the wings 28 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 17.

Mas. Alæ anticæ longæ, sat angulatæ, valde falcatæ, apud costam subrectæ, apice acuminatæ, margine exteriore concavo sat obliquo; posticæ abdomen triente superantes.

Male. Fore wings long, rather narrow, almost straight along the costa, acuminated and very much falcated at the tips, concave and rather oblique along the costa; second inferior vein twice further from the third than from the first. Hind wings extending for one-third of their breadth beyond the abdomen.

29. Hyperchiria Janeira.

Mas. *Alæ anticæ apice acuminatæ fusco-ferrugineæ, striga subbasali interrupta lutescente, ocello fusco luteo annulato, strigaque nigra e media marginis interni ad apicem extensa; posticæ supra castaneo-rufæ, margine postico fusco ocello magno concolore maculam ovalem nigram includente fulvoque extus annulato.*

Saturnia Janeira, *Westw. Ann. Nat. Hist. 2nd Ser.* xv. 300.

a. Rio Janeiro. From Mr. Stevens' collection.

Group 18.

Fœm. Alæ latæ; anticæ apud costam convexæ, apice valde acutæ vix falcatæ, margine exteriore subconvexo vix obliquo; posticæ abdomen paullo superantes.

Female. Wings broad. Fore wings convex in front, very acute, but hardly falcated at the tips, very slightly convex and hardly oblique along the exterior border; second inferior vein much further from the third than from the first.

30. Hyperchiria Abas.

Fœm. *Ferruginea; alæ anticæ fuscæ, basi ferrugineæ, apud marginem exteriorem pallidè fuscæ, guttis plurimis nigris albo marginatis, plaga discali transversa fasciisque tribus exterioribus lividis, fascia basim versus strigaque subapicali subpurpurascentibus; posticæ cinereo-fuscæ, basi ferrugineæ, fasciis duabus exterioribus undulosis nigricantibus, ocello rufo albo pupillato nigro marginato, subtus luteæ gutta discali alba fasciaque apud marginem exteriorem viridem purpurascente.*

Bombyx Abas, *Fabr. Sp. Ins.* ii. 173, 29; *Mant. Ins.* ii. 110, 33; *Ent. Syst.* iii. 1, 419, 38. *Oliv. Enc. Méth. Ins.* v. 37, 46.

Phalæna-Bombyx Attacus Abas, *Cram. Pap. Exot.* i. 121, pl. 77, f. A. B.

Phalæna-Bombyx Attacus Abas, *Gmel. ed. Syst. Nat.* i. 5, 2406, 478.

Gamelia Abas, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1621.

Phalæna-Bombyx Attacus Abasia, *Cram. Pap. Exot.* iv. 103, pl. 344, f. A. B. C.

Gamelia Abasia, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* i. *Sphing.* v. *Echidnæ*, D. *Recondentes*, 5, f. 1—4. *Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1620.

Io Anletes, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Ser.* 1, pl. 20, f. 96, 97, (1854).

Surinam.

Female. Ferruginous. Fore wings brown, convex in front, much acuminated at the tips, ferruginous at the base, pale brown about the hind part of the exterior border, with numerous discal black white-bordered dots, with a large transverse ear-shaped livid discal spot, with a lilac black-bordered apical streak, with a lilac band near the base, with a neighbouring livid transverse streak, and with three irregular livid bands beyond the large spot; under side grayish brown, with luteous veins and a white black-bordered ocellus, luteous along the costa, purplish along the exterior border. Hind wings grayish brown, ferruginous towards the base, with two undulating blackish bands, and a large red ocellus, with a white centre and a black border, under side luteous, with a white ocellus, and a broad lilac band towards the exterior margin, which is greenish; this band has a slender lilac band on each side, and the inner one is bordered with brown.

Var. β. Female. Mouse-colour, rather paler beneath. Antennæ tawny. Thorax and fore wings towards the base brown. Abdomen extending to five-sixths of the breadth of the hind wings. Wings broad, not long. Fore wings falcate, convex in front, hardly undulating and slightly oblique along the exterior border, a small indistinct tawny discal ocellus, which has a transverse black mark in its centre, and is bordered with black and hoary; a straight brown band interlined with tawny extends from the tips to three-fourths of the length of the interior border, and along its outer side there is an undulating pale brown band; under side with a black discal spot. Hind wings with a large blood-red discal ocellus, which is bordered with deep black, and has a black centre which is surrounded with pinkish white, and is apparent also on the under side; two exterior brown bands, the outer one broader than the other. Length of the body 10 lines; of the wings 32 lines.

a. ——— ? From Mr. Children's collection.

Group 19.

Mas. Corpus robustum. Antennæ late pectinatæ, thorace vix longiores, ramis duplicatis inæqualiter longis. Alæ latæ; anticæ falcatæ, apud costam convexæ, margine exteriore subunduloso, mediocriter obliquo; posticæ abdomen paullo superantes.

Male. Body stout. Antennæ deeply pectinated, very little longer than the thorax, with about thirty joints; one branch in each pair slender, and not half the length of the other, which is stout and ciliated. Abdomen extending nearly as far as the hind wings. Wings broad. Fore wings falcate, convex in front, moderately oblique and very slightly undulating along the exterior border; second inferior vein very much nearer to the third than to the first.

31. Hyperchiria complicata.

Mas. *Fusca; antennæ fulvæ; alæ anticæ basi albo signatæ, plaga discali fasciisque duabus obscurioribus, ocello subtus e gutta alba nigro latissime marginata; posticæ ocello atro albo-pupillato, annulo luteo margine exteriore atro.*

Male. Brown. Body tawny beneath. Antennæ tawny. Abdomen tawny at the tip. Fore wings with a transverse white mark at the base; the transverse discal patch and the two bands darker brown; exterior band very much more oblique than the interior

band, extending from each tip to beyond one-third of the length of the interior border; under side with a large black spot, which has a white dot in the centre. Hind wings reddish brown; ocellus deep black, with a diffuse white centre and a luteous border, which latter is contiguous to an exterior deep black band; under side with a white discal dot. Length of the body 8 lines; of the wings 26 lines.

a, *b*. Venezuela. From Mr. Dyson's collection.

32. Hyperchiria Arminia.

Alæ anticæ obscure fuscæ immaculatæ, posticæ fusco-rubræ, ocello ovato atro.

Phalæna-Bombyx Attacus Arminia, *Cram. Pap. Exot.* iv. 126, pl. 356, f. A.

Bombyx Arminia, *Oliv. Enc. Méth. Ins.* v. 35, 41.

Automeris Arminia, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1619.

Automeris Armidia, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1612.

Fore wings reddish brown, with two red spots at the base, and one by the interior border near the base; a narrow dark brown exterior band, with reddish marks. Hind wings dark red, with two exterior bands, the inner one black and much more slender than the outer one, which is brown; ocellus brown, with a white-marked and dotted centre and two concentric rings, the black inner one broader than the yellow outer one.

Surinam.

Group 20.

Alæ anticæ subfalcatæ, apud costam subconvexæ, margine exteriore obliquo, apud medium inciso. *Mas.*—Alæ posticæ abdomen non superantes. *Fœm.*—Alæ posticæ abdomen longe superantes.

Fore wings slightly falcate, slightly convex in front, oblique along the exterior border, which is slightly notched in the middle. *Male.*—Abdomen extending as far as the hind wings. *Female.*—Abdomen extending to two-thirds of the breadth of the hind wings.

33. Hyperchiria Incisa.

Alæ anticæ rufo-cinereæ, strigis fuscis; posticæ cinereæ, ocello rubro fasciisque duabus abbreviatis nigris.

Phalæna-Bombyx Attacus Nausica, *Cram Pap. Exot.* iv. 26, pl. 303, f. B. C.

Bombyx Nausica, *Oliv. Enc. Méth. Ins.* v. 78, 55, pl. 71, f. 2.

Hyperchiria Nausica, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1623.

Surinam.

Pale testaceous. Head and legs ferruginous. Antennæ tawny. Thorax with a brown stripe. Wings beneath with a slender ferruginous band, pale lilac towards the exterior border. Fore wings with four slight oblique tawny bands; second broader than the first or the third; fourth indistinct, undulating; under side with a black discal spot and an exterior ferruginous band. Hind wings pale luteous; ocellus large, blood-red, with a large pinkish white centre and a deep black border; under side with two dark brown bands. *Male.*—Abdomen pale luteous. Wings beneath luteous. *Female.*—Abdomen luteous. Wings beneath ferruginous. Hind wings darker towards the base, near which there is a tawny band. Length of the body 9—10 lines; of the wings 26—34 lines.

a—c. Brazil. From Mr. Mornay's collection.
d, e. Brazil. From Mr. Children's collection.
f. Brazil. From Mr. Stevens' collection.
g. Brazil.

34. Hyperchiria Io.

Mas. *Fuscescens; thorax purpureo vittatus; alæ anticæ guttis nigris fasciisque quatuor purpurascentibus; posticæ pallidæ, fasciis duabus nigricantibus unaque exteriore rufa, ocello rubro albo signato nigro marginato.*

Bombyx Io, *Fabr. Syst. Ent.* 560, 16; *Sp. Ins.* ii. 173, 28; *Mant. Ins.* ii. 110, 32; *Ent. Syst.* iii. 1, 419, 37. *Oliv. Enc. Méth. Ins.* v. 36, 45.

Phalæna-Bombyx Attacus Io, *Cram. Pap. Exot.* iv. 26, pl. 303, f. D—G. *Gmel. ed. Syst. Nat.* i. 5, 2406, 477.

Hyperchiria Io, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Recondentes*), 155, 1624.

Surinam.

Group 21.

Mas. Alæ anticæ, subangustæ apud costam convexæ, apice falcatæ, margine exteriore inciso perobliquo, posticæ latiores, apud costam dilatatæ, abdomen longe superantes, margine exteriore denticulato.

Male. Abdomen not extending near so far as the hind wings. Fore wings rather narrow, convex along the costa, falcate at the tips, with a deep excavation and with two posterior notches on the exterior border, which is very oblique; no interior angle; three inferior veins; second rather near the first at the base; third remote. Hind wings broad, very convex and much dilated along the costa, which is notched at the tip; exterior border slightly scalloped.

35. Hyperchiria Nausica.

Mas. *Cervina; caput et thorax nigro vittata; caput antice et pectus rufa; antennæ fulvæ; abdomen luteum, basi subtus rufum; tibiæ anticæ tarsique nigricantia; alæ anticæ fasciis quatuor angustis perobliquis lituraque discali fuscis, subtus apud costam purpureo-rufæ litura discali nigra; posticæ testaceæ, fasciis duabus posterioribus arcuatis strigaque basali transversa nigris, ocello roseo-nigro marginato, subtus rufescentes fasciis duabus purpurascentibus exterioribus unaque fuscescente subundulosa media.*

Phalæna-Bombyx Attacus Nausica, *Cram. Pap. Exot.* iii. 97, pl. 249, f. D, E.

Surinam.

Male. Fawn-colour. Head and thorax with a black stripe. Head red in front. Antennæ tawny. Pectus red. Abdomen luteous, red at the base beneath. Fore tibiæ and tarsi blackish. Fore wings with four slender very oblique brown bands; first and second bands straight; third and fourth slightly curved; a brown transverse discal mark between the first and second bands; under side purplish, reddish along the costa, with a black discal mark. Hind wings testaceous, with a blackish transverse streak near the base, with a large rose-coloured black-bordered discal ocellus, and with two curved black posterior bands; under side reddish, darkest along the costa, with a brownish slightly undulating band beyond the middle, and with two pale purplish bands nearer the exterior border. Length of the body 9 lines; of the wings 30 lines

a, *b*. Rio Janeiro. From Mr. Stevens' collection.
c, *d*. Brazil. From Mr. Stevens' collection.

Group?

36. HYPERCHIRIA ERYTHROPS.

Alæ-flavo aurantiacæ; anticæ puncto discali lineaque transversa rubrescentibus; posticæ macula ocellari rubra nigro cincta medio albida, lineaque transversa fusco-violacea.

Io erythrops, *Blanch.*; *Gay, Hist. de Chile, Zool.* vii. 59, 1. *Atlas, Zool. Lep.* pl. 4, f. 2.

Coquimbo.

Group 22.

Mas. Corpus sat robustum. Antennæ late pectinatæ, apice nudæ, thorace multo breviores. Pedes validi, pilosissimi, breviusculi. Alæ anticæ falcatæ, apud costam rectæ, apices versus convexæ, margine exteriore obliquo undulosо. *Fœm.*—Corpus crassum. Antennæ simplices.

Male. Body moderately stout. Palpi very pilose, not extending so far as the head. Antennæ deeply pectinated, bare at the tips, much shorter than the thorax. Abdomen extending nearly as far as the hind wings. Legs stout, very pilose, rather short. Fore wings straight along the costa to beyond half the length, convex from thence to the tips, which are falcate, oblique and undulating along the exterior border; interior angle rounded; three inferior veins; second very much further from the third than from the first. *Female.*—Body very stout. Antennæ simple.

37. HYPERCHIRIA METAPYRRHA.

Mas. *Pallide ferruginea; antennæ testaceæ; thorax nigro vittatus; abdomen apice testaceum, subtus rubrum nigro fasciatum; alæ anticæ apud costam viridescentes, macula discali albido-testacea subrotunda nigro marginata et signata, subtus testaceæ fascia interrupta rufo-fusca; posticæ fascia subundulosa nigricante maculaque subrotunda discali flava fusco marginata, subtus purpurascentes.*

Male.—Pale ferruginous. Antennæ testaceous. Thorax with a short black stripe which widens in front. Abdomen testaceous at the tip; under side bright red, with blackish bands. Fore wings with an indistinct greenish tinge along the costa; discal spot whitish testaceous, nearly round, with a blackish border, and with a blackish mark in its disk; an oblique band beyond three-fourths of

the length, undulating on its outer side, with a pale border on its inner side, diffuse towards the tips, which are mostly blackish; under side testaceous, with a reddish brown band, which is interrupted in the middle and diffuse towards the tip. Hind wings with a purplish tinge along the interior border, reddish along the exterior border, with an intermediate slightly undulating blackish band; a yellow nearly round discal spot, indistinctly bordered with brown; under side purplish, luteous and reddish for one-third of the length from the exterior border; an oblique black band adjoining the above hue, and dividing it from the discal spot, which is yellow, with a black dot in its disk. Length of the body 8 lines; of the wings 19 lines.

Rio Janeiro. In Mr. Fry's collection.

38. HYPERCHIRIA APPROXIMANS.

Murina; abdomen ferrugineum; alæ anticæ macula obliqua elongata discali fasciaque exteriore strigaque subapicali obscurioribus. Mas.—*Abdominis discus supra fuscus.* Fœm.—*Alæ posticæ fasciis duabus obscurioribus.*

Mouse-colour. Abdomen ferruginous. Fore wings darker towards the base, with a darker rather large oblique elongated discal spot, and with a darker oblique rather broad discal band beyond the spot; this band is undulating on the hinder part of the outer border, and there is a short darker band on the fore part of the exterior border. *Male.*—Disk of the abdomen brown above. Hind wings like the fore wings, but not darker towards the base. *Female.*—Hind wings with two slender darker bands, the space between them corresponding to the band of the fore wings. Length of the body 6—8 lines; of the wings 18—24 lines.

Var. β. Fore wings with three small discal spots instead of one large one; band much darker along its inner side than elsewhere, and with a ferruginous tinge adjoining the dark part.

Var. γ. like *var. β.* Antennæ testaceous. Abdomen reddish ferruginous. Wings with a slight purplish tinge. Fore wings with a testaceous tinge instead of the ferruginous one on the band.

Rio Janeiro. In Mr. Fry's collection.

39. HYPERCHIRIA SUBCANA.

Fœm. *Cinereo-cana; palpi basi testacei; antennæ testaceæ; alæ anticæ basi fasciisque duabus fuscescentibus, macula discali obscure fusca; posticæ fusco bifasciatæ.*

Female. Cinereous-hoary. Palpi testaceous towards the base. Antennæ testaceous. Fore wings brownish about the base in front, and with two slender imperfect oblique slightly undulating brownish bands beyond the discal spot, which is small and dark brown. Hind wings with two nearly similar bands; the space between the first and the base of the wing paler brown. Length of the body 9 lines; of the wings 20 lines.

Rio Janeiro. In Mr. Fry's collection.

40. HYPERCHIRIA MYOPS.

Fœm. *Murina; antennæ fulvæ; abdomen fulvum; alæ anticæ fasciis duabus pallidioribus maculaque oblonga transversa discali obscuriore; posticæ macula discali fasciaque exteriore obscurioribus.*

Io Myops, *MSS.*

Female. Mouse-colour. Antennæ tawny, minutely serrated, much shorter than the thorax. Abdomen tawny, hardly extending beyond the hind wings. Fore wings with two paler bands; the inner one including the darker transverse oblong discal spot; the outer one interrupted in front. Hind wings a little paler than the fore wings; discal spot and a broad exterior band rather darker than the rest of the wing. Length of the body 7½—9 lines; of the wings 22—25 lines.

Var. β. Wings darker; the pale bands on the fore wings more irregular; hind wings almost wholly dark gray.

Var. γ. Wings very dark gray. Fore wings with three slender paler bands, the exterior one incomplete.

a—f. Brazil. From M. Becker's collection.
g, h. Brazil. From Mr. Stevens' collection.
i. Brazil. From Mr. Argent's collection.
j. Brazil.

41. HYPERCHIRIA VAGANS.

Fœm. *Cervina; antennæ albido stramineæ; thorax postice roseus; abdomen obscure fuscum albo fasciatum; pedes ex parte roseo hirti; alæ anticæ fasciis duabus diffusis maculaque discali albidis fasciaque media angusta obliqua recta fusca; posticæ fascia obscuriore fasciisque subtus indistinctis undulosis albidis.*

Io vagans, *MSS.*

Female. Fawn-colour. Antennæ whitish straw-colour, much longer and stouter than those of *H. Myops*. Thorax rosy towards the abdomen. Abdomen dark brown, with white bands. Legs partly clothed with rosy hairs. Fore wings with a straight slender oblique brown band by the whitish discal mark, and with two very diffuse and indistinct whitish bands. Hind wings with the fringe mostly white; an indistinct darker band before the middle; under side with indistinct undulating whitish bands. Length of the body 9 lines; of the wings 30 lines.

Brazil. In Mr. Saunders' collection.

Genus 15. AGLIA.

Corpus sat robustum. Palpi brevissimi. Proboscis non conspicua. Antennæ thorace longiores. Pedes sat graciles; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ mediocriter latæ, non longæ; anticæ subacuminatæ, apud costam vix convexæ, margine exteriore mediocriter obliquo. *Mas.*—Antennæ latissime pectinatæ; rami æquales, graciles, ciliati, non duplicati. Abdomen sat gracile. Alæ posticæ abdomen longe superantes. *Fœm.*—Antennæ subserratæ, subsetosæ. Abdomen crassum. Alæ posticæ abdomen non superantes.

Aglia, *Ochs. Schmett. von Eur.* iii. 11. *Hübn. Verz. Schmett.* 152.
Phalæna-Bombyx Attacus, p., *Linn.; Gmel. Steph. Ill. Brit. Ent. Haust.* ii. 36.
Saturnia, p., *Schr.*
Bombyx, p., *Fabr.; Oliv.; Esper.; Hübn.; Haw.*

Body rather stout. Palpi very short. Antennæ longer than the thorax. Legs rather slender; hind tibiæ with two minute apical spurs. Wings moderately broad, not long. Fore wings slightly acuminated, hardly convex along the costa, moderately oblique along the exterior border; second inferior vein very near the first, but about four times further from the third. *Male.*—Antennæ very deeply pectinated; branches of equal length, slender, ciliated, not in pairs. Abdomen rather slender, extending to hardly beyond two-thirds of the breadth of the hind wings. *Female.*—Antennæ minutely serrated and setose. Abdomen thick, extending as far as the hind wings.

1. Aglia Tau.

Alæ testaceæ, ocello subviolaceo, pupilla hastata alba.

——— ———, *Röes. Ins.* pl. 68, f. 1 (larva); iv. pl. 7, f. 3. *Schæff. Icon. Ins.* pl. 85, f. 4—6. *Udmm. Diss.* 61. *Ernst, Pap. d'Eur.* iv. 67, pl. 129, f. 175.

Phalæna-Bombyx Attacus Tau, *Linn. Syst. Nat.* i. 2, 811, 8; *Faun. Suec.* 1100; *Act. Stockh.* 1749, 130, pl. 4, f. 8. *Gmel. ed. Syst. Nat.* i. 5, 2406, 8. *Esper. Schm.* iii. 40, pl. 65, f. 8. *Turt. Syst. Nat.* iii. 198. *Naturf.* vi. 104, pl. 5, f. 3; 119; 215, 8, pl. 19.

Bombyx Tau, *Fabr. Syst. Ent.* 560, 15; *Sp. Ins.* ii. 172, 22; *Mant. Ins.* ii. 110, 31; *Ent. Syst.* iii. 1, 418, 36. *Oliv. Enc. Méth. Ins.* v. 36, 44. *Scopoli, Ent. Carn.* 192, 484. *Hübn. Bomb.* 115, 1, pl. 13, f. 51, 52. *Larv. Lep.* iii. *Bomb.* i. *Sphing.* G. f. 1, a—c. *Fuesly, Schw. Ins.* 33, 633. *N. Mag.* iii. 2, 146, 33. *Wien. Verz.* 49, 8. *Illig. N. Ausg. dess.* i. 61, 8. *Panz. Faun. Germ.* 33, 10, 11. *Müll. Faun. Fridr.* 38, 349; *Zool, Dan.* 117, 1348. *Borkh. Eur. Schmett.* iii. 38, 4; *Rhein. Mag.* i. 327, 153. *Vieweg, Tab. Verz.* i. 29, 2. *Lang. Verz.* 283, 644. *Brahm, Ins. Kal.* 218, 113. *Schwarz, Raup.* 207, 371, 510, 638. *Schr. Faun. Boic.* ii. 1, 246, 1419.

Saturnia Tau, *Schr. Faun. Boic.* ii. 2, 149, 4.

Bombyx Tanus, *Haw. Lep. Brit.* 79.

Aglia Tau, *Ochs. Schmett. von Eur.* iii. 12, 1. *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Lunatæ*), 152, 1592. *Steph. Ill. Brit. Ent. Haust.* ii. 37. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 97, 5.

a—d. Europe. From M. Becker's collection.
e. Europe. Presented by ———.
f—h. Germany.

Genus 16. POLYTHYSANA.

Mas. Corpus vix robustum. Palpi brevissimi. Antennæ latissime pectinatæ, thorace longiores; rami duplicati, æquales, longissimi, gracillimi, densissime ciliati. Pedes sat graciles; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ; anticæ subfalcatæ, apud costam vix convexæ, apice rotundatæ, margine exteriore perobliquo subundulato; posticæ abdomen triente superantes.

Saturnia, p., *Blanchard.*

Male. Body hardly stout. Palpi very short, not extending so far as the head. Antennæ extremely deeply pectinated, much longer than the thorax; branches in pairs, of equal length, very long and slender, and very thickly ciliated. Abdomen extending to two-thirds of the breadth of the hind wings. Wings broad. Fore wings very slightly falcate, hardly convex in front, rounded at the tips; exterior border slightly undulating and very oblique; second inferior vein about thrice further from the third than from the first.

1. POLYTHYSANA RUBRESCENS.

Fusco villosus, subtus fulvo pilosus; alæ anticæ pallide flavo-cinereæ, plaga interna basilari; striga fascia latissima undata apiceque fuscis maculaque media ocellari fusca, vel aurantiaca, nigro cincta, lineola disci niveа; alæ posticæ basi fuscæ, apice rubræ, macula ocellari rubra nigro cincta, medio albo pupillata. Mas.—*Alæ posticæ aurantiacæ.* Fœm.—*Alæ fulvescentes.*

Attacus rubescens, *Blanch., Gay, Hist. de Chile, Zool.* vii. 60, 1. *Atlas, Zool. Lep.* pl. 4, f. 3.

Coquimbo.

a. Valdivia. From Mr. Cuming's collection.

Genus 17. GIACLA.

The specimens under this name are mutilated, and in some characters, such as the deeply pectinated antennæ and the ocellated wings, the genus much resembles the *Saturniidæ*, but a further examination proves it to have more affinity to the *Noctuites*, and it is therefore transferred to that tribe.

Genus 18. BRAHMÆA.

Corpus crassum. Proboscis distincta, capitis latitudine paullo longior. Palpi validi, pilosi, caput non superantes; articulus 3us brevissimus, minimus. Antennæ thorace paullo longiores. Pedes validi, longiusculi; tibiæ anticæ subtus fasciculatæ, posticæ calcaribus duobus apicalibus mediocriter longis. Alæ longæ, latiusculæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore obliquo vix convexo. *Mas.*—Antennæ densissime pectinatæ, ramis mediocriter longis. Femora antica subtus calcarata.

Bombyx, p., *Fabr.; Gray; Hope.*

Body thick. Proboscis distinct, rather longer than the breadth of the head. Palpi thick, pilose, not extending beyond the head; third joint very short and small. Antennæ rather shorter than the thorax. Abdomen extending to three-fourths of the breadth of the hind wings. Legs stout, rather long; fore tibiæ tufted beneath; hind tibiæ with two moderately long apical spurs. Wings long, rather broad. Fore wings hardly convex in front, rounded at the tips, oblique and very slightly convex along the exterior border; interior angle rounded; three inferior veins; second about twice further from the third than from the first. *Male.*—Antennæ moderately pectinated; joints and branches very numerous. Abdomen stout. Fore femora with a long appendage beneath at the tip.

1. Brahmæa Certhia.

Corpus supra luteo-fuscum, maculis rivulisque nigris variegatum, subtus nigrum; alæ anticæ integræ, concolores, basi rivulis octo nigris, medio magis fuscescente, linea nigra utrinque valde irregulari incluso, maculisque parvis nigris in venas dispositis, apice antico lineis angularibus albis maculisque duabus majoribus nigris, apice postico rivulis decem nigris; alæ posticæ dimidio basali nigro, apicali pallido nigro revuloso; antennæ bipectinatæ, pectinibus mediocribus; palpi parvi; lingua spiralis; maxillæ capite duplo longiores.

——— ———, *Petiver, Gazoph.* pl. 18, f. 3.
Bombyx Certhia, *Fabr. Ent. Syst.* iii. 1, 412, 16.
Bombyx Wallichii, *Gray, Zool. Misc.* 39.
Bombyx spectabilis, *Hope, Linn. Trans. Lond.* xviii. 443, pl. 31, f. 3.

Assam.

a, *b*. Silhet. Presented by E. Doubleday, Esq.
c. Silhet. From Mr. Sowerby's collection.

2. Brahmæa? Lucina.

Alæ anticæ falcatæ, posticæ rotundatæ, omnes albido-subcinereæ fusco multum rivulosæ strigis undulatis, submarginalibus; anticæ maculis nonnullis mediis ocelloque parvo apicali nigris.

Phalæna Attacus Lucina, *Drury, Illustr.* iii. pl. 34, f. 1.
Bombyx Lucina, *Oliv. Enc. Méth.* v. 31.

Saturnia Lucina, *Westw. Ed. Drury*, iii. 45, pl. 34, f. 1; *Proc. Zool. Soc. Lond.* 1849, 56, 25.
Bombyx Lucina, *Oliv. Enc. Méth. Ins.* v. 31, 27.

Sierra Leone.

This species probably constitutes a distinct genus.

Genus 19. HEMILEUCA.

Corpus valde pilosum. Palpi pilosi, brevissimi. Antennæ thorace paullo longiores. Alæ mediocriter latæ, non longæ, striga semihyalina discali; anticæ apud costam rectæ, apice rotundatæ, margine exteriore obliquo subrecto; posticæ abdomen non superantes. *Mas.*—Antennæ late pectinatæ; rami graciles, ciliati, æqualiter longi, non duplicati.

Phalæna-Bombyx Attacus, p., *Drury; Cram.; Gmel.*
Bombyx, p., *Fabr.; Oliv.*
Saturnia, *Hübn. Verz. Schmett.* 157.
Saturnia, p., *Westw.*

Body very hairy. Proboscis not visible. Palpi pilose, very short; third joint very small. Antennæ rather longer than the thorax. Abdomen extending as far as the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings moderately broad, not long; each with a semihyaline discal streak. Fore wings straight in front, rounded at the tips, oblique and almost straight along the exterior border; interior angle rounded; discal areolet closed; three inferior veins; second very near the first, very remote from the third. *Male.*—Antennæ deeply pectinated; branches of equal length, slender, single, ciliated. Abdomen hardly stout.

North America.

1. Hemileuca Maja.

Alæ rotundatæ nigræ, fascia alba maculaque subocellari nigra; anus rufescens.

Phalæna-Bombyx Attacus Maja, *Drury, Ill. Ins. Exot.* ii. 42, pl. 24, f. 3. *Append.* ii. *Cram. Pap. Exot.* ii. 3, pl. 98, f. A.
Bombyx Proserpina, *Fabr. Ent. Syst.* 561, 17; *Sp. Ins.* ii. 173, 31; *Mant. Ins.* ii. 110, 35; *Ent. Syst.* iii. 1, 419, 40. *Oliv. Enc. Méth. Ins.* vii. 37, 48.
Phalæna-Bombyx Attacus Proserpina, *Gmel. ed. Syst. Nat.* i. 5, 2407, 480. *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* pl. 50. *Pal. Beauv. Ins. Afr. et Amer. Lep.* pl. 24, f. 2, 3.

Saturnia Maja, *Hübn. Verz. Schmett, (Phalænæ Veræ Herææ Diluci-dæ)* 157, 1640. *Westw. ed. Drury*, ii. 45, pl. 24, f. 3.

a, *b*. North America. From Mr. Milne's collection.
c, *d*. North America. From Mr. Children's collection.

2. Hemileuca Eglanterina.

Alæ anticæ albido-carneæ, striga basali, fasciis duabus transversis, fimbria, maculis sagittatis oculoque subcæco nigris; posticæ luteæ macula media, fascia transversa sagittisque marginalibus nigris.

Saturnia Eglanterina, *Boisd. Ann. Soc. Ent. Fr. 2me Sér.* x. 323, 95.

California.

Group 2.

Mas. Corpus sat robustum. Palpi brevissimi. Antennæ late pectinatæ, thorace paullo longiores; rami simplices, subæquales, graciles, ciliati. Pedes sat graciles; tibiæ posticæ calcaribus duobus apicalibus minutis. Alæ latiusculæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo vix convexo; posticæ abdomen vix superantes.

Male. Body moderately stout. Palpi very short, not extending as far as the head. Antennæ deeply pectinated, a little longer than the thorax; branches nearly equal in length, slender, ciliated, not in pairs. Abdomen extending almost as far as the hind wings. Legs rather slender; fore tibiæ with two apical spurs, of which one is longer than the other; hind tibiæ with two minute apical spurs. Wings rather broad. Fore wings straight along the costa, rounded at the tips, very oblique and very slightly convex along the exterior border.

3. Hemileuca Pica.

Mas. *Alba; corpus luteo varium; antennæ fuscæ; abdomen fusco fasciatum; alæ fasciis duabus undulosis plaga arcuata discali strigisque marginalibus nigris.*

Male. White. Head, thorax in front and behind, pectus and femora luteous. Antennæ, tibiæ and tarsi brown. Abdomen above luteous, with a whitish spot and a brown band on each segment. Wings with black borders, with two curved black bands, with a

large curved discal black spot, and with marginal black streaks. Fore wings with a black basal streak. Length of the body 11 lines; of the wings 30 lines.

a. United States. Presented by E. Doubleday, Esq.

South America.

4. HEMILEUCA VENOSA.

Mas. *Nigra, testaceo pilosa; abdomen maculis lateralibus testaceis, apice rufum; alæ sordide albidæ, fasciis duabus nigricantibus, venis nigro nebulosis.*

Male. Black. Antennæ extremely deeply pectinated, a little more than half the length of the body; branches in pairs; one in each pair longer than the other and deeply ciliated. Palpi partly clothed with testaceous hairs. Thorax with some testaceous hairs, wholly testaceous in front. Abdomen with lateral testaceous spots, red at the tip, extending to rather beyond three-fourths of the breadth of the hind wings. Legs stout; tibiæ and tarsi clothed beneath with reddish testaceous hairs. Wings dingy whitish, with two blackish bands, the first near the second, which is marginal; veins more or less clouded with black; veinlet across the end of the discal areolet testaceous. Fore wings straight along the costa; second inferior vein nearly twice further from the third than from the first. Length of the body 8—9 lines; of the wings 22—24 lines.

a. Santa Fé de Bogotà. Presented by E. Doubleday, Esq.
b. Santa Fé de Bogotà. From Mr. Isaacson's collection.
c. Carraccas. Presented by E. Doubleday, Esq.
d. New Grenada. From Mr. Stevens' collection.

Genus 20. APHELIA.

Mas. Corpus gracile. Palpi breves, pilosi, caput non superantes. Antennæ latissime pectinatæ, thorace paullo longiores; rami ciliati, gracillimi, æqualiter longi, non duplicati. Alæ latissimæ, non longæ, vix vestitæ; anticæ apud costam subconvexæ, apice subangulatæ, margine exteriore obliquo subrecto; posticæ multo latiores, abdomen plus dimidio superantes.

Saturnia, p., *Boisd.*
Saturnia (Aphelia), *Westw.*

Male. Body slender. Palpi short, pilose, not extending beyond the head; third joint very small. Antennæ very deeply pectinated, a little longer than the thorax; branches of equal length, single, ciliated, very slender. Abdomen extending to much less than half the breadth of the hind wings. Legs stout; hind tibiæ with very minute apical spurs. Wings very broad, not long, very thinly clothed with hairs. Fore wings very slightly convex towards the tip of the costa, obtusely angular at the tips, oblique and almost straight along the exterior border; interior angle rounded; discal areolet closed; second inferior vein much more than twice further from the third than from the first. Hind wings much broader than the fore wings.

1. APHELIA APOLLINARIS.

Alæ externe rotundatæ albæ aut testaceæ venis nigricantibus, anticæ maculis duabus parvis mediis flavis fusco cinctis; apice nigricante striga communi extus dentata cum margine postico parallela, margine fusco nigricante maculis flavis ornato; abdomen album apicibus segmentorum flavidis, serieque dorsali laterali et ventrali punctorum nigrorum; prothorax margine antico flavido.

Saturnia Apollinaris, *Boisd. Voy. de Delegorg. dans l'Afriq. Austr.* ii. 601.

Saturnia (Aphelia) Apollinaris, *Westw. Proc. Zool. Soc. Lond.* 1849, 61, 33.

"Veins of the fore wings arranged as in the typical *Saturniæ*. Spiral tongue distinct. Palpi distinct, turned upwards, extending rather further than the hairs of the face. Antennæ consisting of about thirty-six joints, bipectinated in both sexes, with only thirty-four rays on each side, each joint, except one or two at the apex, emitting only a pair of rays, which are rather short."—*Westw.*

a. Port Natal. From Mr. Argent's collection.
b. Port Natal. Presented by E. Doubleday, Esq.
c, *d.* Port Natal. From M. Gueinzius' collection.

Genus 21. RHESCYNTIS.

Corpus robustum. Proboscis latitudine æqualis aut brevior. Palpi validi, pilosi, porrecti, caput paullo superantes; articulus 3us obtusus, brevissimus. Antennæ thoracis longitudine. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus. Alæ amplæ; anticæ nonnunquam falcatæ, apud costam subconvexæ, apice

rotundatæ, margine exteriore concavo aut subrecto. *Mas.*—Antennæ subpectinatæ; rami æquales, validi. *Fœm.*—Antennæ subserratæ.

Phalæna-Bombyx Attacus, p., *Cram.*; *Gmel.*
Bombyx, p., *Fabr.*; *Oliv.*
Rhescyntis, *Hübn. Verz. Schmett.* 156.
Aricia, *Boisd.*; *Herr.-Schæff.*
Arsenura, *Duncan, Nat. Library.* viii.

Body stout. Proboscis visible, as long as the breadth of the head, or shorter. Palpi thick, pilose, porrect, extending a little beyond the head; third joint obtuse, very short. Antennæ as long as the thorax. Abdomen extending to three-fourths or nearly to the whole breadth of the hind wings. Legs stout, pilose; hind tibiæ with two moderately long or rather short apical spurs. Wings ample. Fore wings occasionally falcate, slightly convex in front, rounded at the tips and on the interior angle, oblique and almost straight or concave along the exterior border; second inferior vein more than twice further from the third than from the first. Hind wings a little broader than the fore wings; exterior border in the male, and occasionally in the female, more or less angular. *Male.*—Antennæ slightly pectinated; branches equal, stout. *Female.*—Antennæ minutely serrated.

Eudæmonia Semiramis is nearly allied to this genus.

A. Alæ anticæ valde falcatæ. - - - Hippodamia, *Cram.*
B. Alæ anticæ vix falcatæ.
  A. Alæ fascia albida.
    a. Alarum anticarum fascia angulis duabus apicalibus. Erythrinæ, *Fabr.*
    b. Alarum anticarum fascia angulo uno apicali.
      a. Alarum anticarum fascia angulo rotundata.
        i. Statura robustum. - - - Hercules, *Walk.*
        ii. Statura gracilius.
          * Alæ fascia nigricante. - - Sylla, *Cram.*
          ** Alæ fascia fusca. - - - Aspasia, *Boisd.*
      b. Alarum anticarum fascia angulo truncato.
        i. Alarum anticarum fascia postica non angulata. Meander, *Walk.*
        ii. Alarum anticarum fascia angulis duobus posticis. xanthopus, *MSS.*
  B. Alæ fascia nulla albida. - - - latifascia, *Walk.*

Group 1.

Mas. Corpus sat validum. Proboscis capitis latitudine non longior. Palpi caput paullo superantes; articulus 2us elongatus; 3us minimus, obtusus. Antennæ late pectinatæ, thorace paullo longiores; rami duplicati, subæqualiter longi. Pedes validi; tibiæ posticæ calcaribus duobus posticis longiusculis. Alæ anticæ falcatæ, sat angustæ, apud costam convexæ, apice rotundatæ, margine exteriore concavo mediocriter obliquo, posticæ latæ, abdomen dimidio superantes.

Male. Body rather stout. Proboscis slight, not longer than the breadth of the head. Palpi extending a little beyond the head; second joint long; third obtuse, very small. Antennæ deeply pectinated, a little longer than the thorax; branches in pairs; one in each pair more slender but very little shorter than the other, which is ciliated. Abdomen extending to half the breadth of the hind wings. Legs stout; hind tibiæ with two rather long apical spurs. Fore wings rather narrow, much hooked, convex in front, rounded at the tips, concave and moderately oblique along the exterior border; second inferior vein full six times further from the third than from the first. Hind wings broad.

1. Rhescyntis Hippodamia.

Mas. *Fusco-cervina; antennæ pallide testaceæ; abdomen supra fuscum; alæ anticæ fascia basim versus testacea antice dilatata e lineis fuscis duplicatis marginata, costa testacea apice albido macula oblonga nigra, fascia exteriore albida, fascia marginali cinereo-fusca, gutta nigra, striga glaucescente lineisque arcuatis albis fuscisque subapicalibus; posticæ fasciis quinque, 1a discali fusca, 2a cinereo-fusca, 3a albida, 4a ferruginea, 5a testacea.*

Phalæna-Bombyx Attacus Hippodamia, *Cram. Pap. Exot.* ii. 43, pl. 121, f. B. *Gmel. ed. Syst. Nat.* i. 5, 2404, 468.

Bombyx Hippodamia, *Fabr. Sp. Ins.* ii. 169, 11; *Mant. Ins.* ii. 109, 13; *Ent. Syst.* iii. 1, 413, 18. *Oliv. Enc. Méth. Ins.* v. 28, 15.

Rhescyntis Hippodamia, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Speculares*), 156, 1635.

Male. Brownish fawn-colour. Antennæ pale testaceous. Abdomen brown above. Fore wings testaceous along the costa, cinereous-brown along the exterior border; a testaceous oblique band near the base, dilated in front, with a double brown border on the inner side, and a quadruple one on the outer side; a whitish narrow band near the exterior border; a whitish streak and oblong black spot near the tip of the costa, behind which there is a glaucous streak, some white and brown curved lines, and a small black spot. Hind wings brownish towards the base; a straight discal brown band, beyond which there is a cinereous-brown band; this is bordered on the outer side by a whitish band, and between the latter and the exterior border there is a ferruginous band and a testaceous band. Length of the body 16 lines; of the wings 74 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

Group 2.

Mas. Corpus mediocriter robustum. Proboscis tenuis, brevissima. Palpi validi, pilosi, porrecti, caput adæquantes. Antennæ mediocriter pectinatæ, thorace longiores, ramis subæqualiter longis. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ; anticæ subfalcatæ, apud costam convexæ, apice rotundatæ aut subtruncatæ, margine exteriore obliquo subconcavo; posticæ subcaudatæ, abdomen triente superantes. *Fœm.* —Antennæ simplices. Alæ posticæ non caudatæ.

Male. Body moderately stout. Proboscis very short and slender, but apparent (this character being an exception to the Synopsis, p. 1198). Palpi stout, porrect, pilose, extending as far as the head. Antennæ moderately pectinated, longer than the thorax; one branch in each pair more slender, but nearly as long as the other, which is ciliated. Abdomen extending to two-thirds of the breadth of the hind wings. Legs stout, pilose; hind tibiæ with two very short apical spurs. Wings broad. Fore wings subfalcate, convex in front, rounded or slightly truncate at the tips, moderately oblique and slightly concave along the exterior border; second inferior vein very much further from the third than from the first. Hind wings with two short oblique tails. *Female.*—Antennæ simple. Hind wings without tails.

2. Rhescyntis Erythrinæ.

Alæ fuscescentes, striga undata pallida.

———— ————, *Merian, Ins. Surin.* ii. pl. 11. *Seba, Mus.* iv. pl. 21, f. 1, 2, 5, 6.

Phalæna-Bombyx Attacus Armida, *Cram. Pap. Exot.* iii. 6, pl. 197, f. A.

Phalæna-Bombyx Attacus Cassandra, *Cram. Pap. Exot.* iii. 7, pl. 197, f. B.

Bombyx Erythrinæ, *Fabr. Sp. Ins.* ii. 169, 9; *Mant. Ins.* ii. 108, 10; *Ent. Syst.* iii. 1, 411, 13. *Oliv. Enc. Méth. Ins.* v. 27, 13.

Phalæna-Bombyx Attacus Erythrinæ, *Gmel. ed. Syst. Nat.* i. 5, 2403, 465.

Rhescyntis Cassandra, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Speculares*), 156, 1633.

Rhescyntis Erythrinæ, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Speculares*), 156, 1632.

a. Brazil. From Mr. Stevens' collection.
b. Brazil. Presented by E. Doubleday, Esq.
c. Brazil. From M. Becker's collection.
d. Venezuela. From Mr. Dyson's collection.

3. Rhescyntis Hercules.

Ferruginea; caput, palpi, thorax anticus et pedes anteriores nigricantia; vertex testaceus; pectus et pedes postici nigro-fusca; abdomen fuscum, guttis lateralibus flavis; alæ anticæ apud discum nigro-fuscæ, costa testacea fusco conspersa necnon fascia obliqua nigra lunulaque rufescente nigro marginata, fascia exteriore gracili undulosa obliqua albido-testacea, margine exteriore flavo-fusca albo conspersa, maculis duabus costalibus albis.

Head, palpi, fore part of the thorax and anterior legs blackish. Vertex of the head testaceous. Proboscis tawny, as long as the breadth of the head. Thorax ferruginous. Pectus and hind legs blackish brown. Abdomen brown; under side rather darker, with a row of yellow dots along each side. Fore wings blackish brown in the disk, testaceous along the costa for nearly one-third of the length, and full two-thirds of the length; this testaceous part is speckled with brown, is somewhat ferruginous towards the base, and contains an oblique black band at one-fourth of the length, and a transverse reddish black-bordered lunule before the middle. The

blackish brown part of the wing is bounded on the outer side by a slender undulating oblique whitish testaceous band, which is abruptly recurved as it approaches the costa; beyond the latter band the wings are yellowish brown, with the exception of a purplish brown interval, which is slightly flecked with white, and is interrupted towards the costa and at the costa by two black spots; the white flecks are most prevalent near the tips, which are red. Hind wings with the blackish brown part and that beyond it as in the fore wings, but without red; the basal half brownish testaceous, including a blackish oblique spot, and with a testaceous band between it and the blackish brown part. Length of the body 26 lines; of the wings 92 lines.

Rio Janeiro. In Mr. Fry's collection.

4. Rhescyntis Sylla.

Mas. *Pallide testacea; abdomen fuscum; alæ fascia lata exteriore obscure fusca extus e linea undulata albida marginata, margine exteriore fusco; anticæ apud marginem interiorem basalem obscure fuscæ, macula discali transversa nigricante, plaga apicali pallide purpurascente albo guttata et lineata, plagaque subapicali nigricante; posticæ basim versus obscure fuscæ.*

Phalæna-Bombyx Attacus Sylla, *Cram. Pap. Exot.* iii. 29, pl. 240, f. A.

Rhescyntis Sylla, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Speculares*), 156, 1634.

Surinam.

Male. Pale testaceous. Abdomen brown. Wings with a broad exterior dark brown band, which is bordered on the outer side by an undulating whitish line, and is divided by the latter from the equally broad but rather paler brown band along the exterior border; under side thickly flecked with brown. Fore wings dark brown about the basal part of the interior border, with a blackish transverse oblong discal spot, with a large apical lilac spot, which is bordered on the outer side by white dots and lines, and with a large subapical blackish spot. Hind wings dark brown towards the base. Length of the body 24 lines; of the wings 84 lines.

a. Pará. From Mr. Stevens' collection.

The figure in Cramer represents the female.

5. Rhescyntis Aspasia.

Fœm. *Fusca; alæ anticæ apud costa medium pallide viridi-fuscæ, basi pallide fuscæ, fasciis duabus strigaque intermedia obliqua nigricante, ocello costali strigis rufis albisque subapicalibus, fasciis duabus exterioribus, una alba undulosa intus nigro marginata, altera nigra angulosa testaceo marginata, strigaque obliqua nigra intus rufo marginata; posticæ basi viridi-fuscæ, maculis submarginalibus fuscis.*

Aricia Aspasia, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Ser.* i. pl. 12, f. 51.

Female. Brown. Fore wings pale greenish brown about the middle of the costa, pale brown towards the base, with two blackish bands, between which there is an oblique blackish streak, with a costal subapical ocellus, which is accompanied by red and white streaks, with an outer white undulating band, which is bordered with black on the inner side, and is accompanied on the outer side by a zigzag black testaceous-bordered band; the latter in front is accompanied by an oblique black streak, which is bordered with red on the inner side. Hind wings greenish brown towards the base, like the fore wings as regards the outer brown band, the white band and the testaceous band; the black border of the latter is more tinged with blue, and on its outer side there is a row of large brown spots.

a. Brazil. From M. Becker's collection.

6. Rhescyntis Meander.

Mas et fœm. *Cervina; proboscis capitis latitudine paullo longior; alæ striga discali atra, fascia albida exteriore undulosa intus atro extus fulvo marginata, lunulis submarginalibus; anticæ apices versus subcyaneæ, apice rufæ striga tenui alba maculisque tribus nigris.*

Male and female. Fawn-colour. Proboscis rather longer than the breadth of the head. Spurs of the hind tibiæ rather longer than those of *R. Erythrinæ*. Wings with a deep black discal streak and a whitish exterior undulating band, which is bordered with deep black on the inner side and with tawny on the outer side, beyond which there is a row of brown lunules on a paler surface. Fore wings bluish towards the tips, which are red, with a slender white streak, adjoining which hue there is one black spot in front

and two behind. Length of the body 20—22 lines; of the wings 72 lines.

This species is rather smaller than *B. Aspasia*, to which it is nearly allied; it differs chiefly in the two undulations of the middle of the whitish band of the fore wings. The hind wings of the male have no tails.

Brazil. In Mr. Saunders' collection.

7. Rhescyntis xanthopus.

Mas. *Cinerea; proboscis capitis latitudine non longior, antennæ et tarsi pallide lutea; abdomen guttis lateralibus luteis; alæ nigro-fuscæ fascia albida undulosa, extus cervinæ fasciis duabus fuscis, una albido marginata, altera intus fulvo marginata; anticæ basi et apud costam cinereæ, fascia fusca, macula exteriore nigro-fusca, apicibus cervinis ex parte rufo marginatis, maculis tribus nigris, 1a cyaneo alboque, 2a rufo marginata.*

Aglia xanthopus, *MSS.*

Male. Cinereous. Proboscis not longer than the breadth of the head. Antennæ and tarsi pale luteous. Abdomen with a row of luteous dots along each side. Wings blackish brown, which hue is bounded exteriorly by a whitish undulating band, beyond which the wings are fawn-colour, with two slight bands, the inner one, brown with whitish borders, the outer one deep brown with a tawny inner border, and much more developed in the hind wings than in the fore wings. Fore wings cinereous at the base and along the costa, with a brown band near the base between the costa and the disk, a blackish brown exterior spot; tips fawn-colour, partly bordered with red; a black spot in front, bordered with blue and white; two black spots behind, the larger one bordered with red. Length of the body 14—16 lines; of the wings 42—50 lines.

a, *b*. Brazil. From M. Becker's collection.

8. Rhescyntis latifascia.

Mas. *Rufo-cervina; antennæ fuscæ; alæ anticæ fasciis duabus fulvis fusco ex parte marginatis; posticæ nigro bifasciatæ.*

Male. Reddish fawn-colour. Antennæ brown. Wings with a slight shining lilac tinge; under side with a slender brown band. Fore wings with two rather broad tawny bands, which converge towards the interior border; the first along its inner side and the

second along its outer side bordered with brown; a tawny tinge along the exterior border, and a brown dot on the disk. Hind wings with two black bands; one near the base, curved and diffuse; the other exterior, diffuse in front, very slender hindward. Length of the body 16 lines; of the wings 56 lines.

a. ——— ? From Mr. Children's collection.

Genus 22. DYSDÆMONIA.

Fæm. Corpus robustum, aut sat gracile. Proboscis capitis, latitudine multo longior. Palpi longiusculi, sat graciles, caput superantes, subascendentes; articulus 3us obtusus, brevissimus. Antennæ subpectinatæ, thoracis longitudine; rami crassi, æquales. Pedes validi, æquales; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ amplæ, margine exteriore angulato et indentato; anticæ apud costam convexæ; posticæ abdomen longe superantes.

Dysdæmonia, *Hübn. Verz. Schmett.* 151.
Phalæna-Bombyx Attacus, p., *Cram.; Gmel.*
Bombyx, p., *Fabr.; Oliv.*

Female. Body stout, or rather slender. Proboscis much longer than the breadth of the head. Palpi rather long and slender, extending some distance beyond the head, slightly ascending; third joint obtuse, very short. Antennæ as long as the thorax, slightly pectinated; the branches equal, very stout. Abdomen extending to about two-thirds of the breadth of the hind wings. Legs stout, pilose; hind tibiæ with minute apical spurs. Wings ample, angular and indented along the exterior border. Fore wings convex in front, truncated at the tips; interior angle rounded; second inferior vein full thrice further from the third than from the first. Hind wings a little broader than the fore wings.

1. DYSDÆMONIA GLAUCESCENS.

Fœm. *Fusca; antennæ testaceæ; alæ anticæ obscure glaucescentes strigis fuscis fasciaque nigricante cyaneo notata; posticæ basi fasciaque angulosa exteriore pallide fuscis.*

Female. Brown. Antennæ testaceous. Fore wings obscurely glaucous, with brown streaks, and with a blackish blue-speckled band, which disappears towards the costa and joins the interior border at two-thirds of the length of the latter; the streaks between this band and the base of the wing are transverse, but the exterior

streaks are parallel to the length of the wing; exterior border with a deep notch between two shallow excavations, somewhat angular in front. Hind wings pale brown towards the base, and with an angular pale brown exterior band; exterior border with two broad shallow excavations; tails short, acute, parallel to the length of the wing. Length of the body 17 lines; of the wings 62 lines.

Brazil. In Mr. Saunders' collection.

2. Dysdæmonia Boreas.

Mas. *Pallide fusca; abdomen fasciis pallide luteis; alæ anticæ apud medium rufescentes, costa basali plagaque interiore albidis, maculis duabus anterioribus vitreis, plaga discali maculis exterioribus fasciisque quatuor fuscis fasciis 2a et 4a antice dilatata, 3a antice undulosa, 4a marginali; posticæ postice rufescentes gutta discali limpida, fasciis tribus posterioribus variis caudisque fuscis.*

Dysdæmonia Boreas, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Caudatæ*), 151, 1584.

Phalæna-Bombyx Attacus Boreas, *Cram. Pap. Exot.* i. 110, pl. 70, f. B. *Gmel. ed. Syst. Nat.* i. 5, 2404, 471.

Bombyx Boreas, *Fabr. Sp. Ins.* ii. 170, 14; *Mant. Ins.* ii. 109, 16. *Ent. Syst.* iii. 1, 413, 21. *Oliv. Enc. Méth. Ins.* v. 29, 19.

Male. Body rather slender. Abdomen not extending near so far as the hind wings. Wings broad. Fore wings falcated, slightly convex in front, truncated at the tips, concave behind the tips. Hind wings rather broader than the fore wings; each with a moderately long tail, which increases in breadth to its tip.

West Indies.

Fœm. *Pallide cervina; corpus crassum; proboscis distincta, capitis latitudine multo brevior; palpi validi, caput vix superantes; antennæ nigricantes serratæ, ramis fasciculatis; alæ fasciis tribus fuscis unaque ferruginea; anticæ maculis duabus parvis discalibus vitreis fusco marginatis, margine exteriore ferrugineo subexcavato; posticæ margine exteriore subindentato, caudis obliquis apice obtusis postice excavatis, macula vitrea minima.*

Female. Pale fawn-colour. Body very stout. Proboscis distinct, much shorter than the breadth of the head. Palpi stout, extending very little beyond the head. Antennæ blackish, serrated; the branches tufted. Wings with one ferruginous and three slender

brown bands. Fore wings ferruginous about the exterior border, which has some slight excavations, and is almost angular in front; two small discal vitreous brown-bordered spots. Hind wings slightly indented along the exterior border; tails oblique to the length of the wing, obtuse at the tips, excavated on the hind side; vitreous spot very small. Length of the body 14 lines; of the wings 52 lines.

In Mr. Saunders' collection.

3. Dysdæmonia? Pluto.

Alæ luridæ, cinereo-fuscæ, fusco badioque transversim subfasciatæ, absque ocellis et lunulis vitreis; anticæ sub apicem emarginatæ; posticæ elongatæ et in caudam latam mediocrem extus oblique extensam productæ.

Saturnia? Pluto, *Westw. Ann. Nat. Hist. 2nd Ser.* xv. 301.

This may be a variety of *D. glaucescens*.

Venezuela.

Genus 23. UROTA.

Corpus vix robustum. Palpi breves, validi, pilosi. Antennæ thorace non longiores. Alæ latiusculæ, maculis nullis vitreis; anticæ non falcatæ, apud costæ apicem convexæ, apice rotundatæ, margine exteriore obliquo subrecto; posticæ latiores, subcaudatæ, abdomen longe superantes. *Mas.*—Antennæ sat late pectinatæ; rami graciles, ciliati, æqualiter longi, non duplicati.

Saturnia (Urota), *Westw.*

Body hardly stout. Proboscis not visible. Palpi short, stout, pilose, not extending so far as the head; third joint very short and small. Antennæ not longer than the thorax. Abdomen extending to two-thirds of the breadth of the hind wings, the tails of the latter excepted. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings rather broad, with no vitreous spots. Fore wings not falcate, convex towards the tip of the costa, rounded and nearly rectangular at the tips, moderately oblique and almost straight along the exterior border; interior angle rounded; discal areolet closed; three inferior veins; second very much further from the third than from the first. Hind wings broader than the fore wings; exterior border forming a short lanceolate tail at one-third of its length from the interior angle. *Male.*—Antennæ rather deeply pectinated; branches of equal length, slender, single, ciliated.

1. UROTA SINOPE.

Alæ anticæ integræ, posticæ breviter caudatæ; anticæ fulvo-fuscæ fasciis duabus albis singula strigam fuscam includente, punctoque parvo ovali media alba; posticæ livide puniceæ puncto medio albo fasciaque pone medium alba.

Saturnia (Urota) Sinope, *Westw. Proc. Zool. Soc. Lond.* 1849, 60, 32.

Saturnia Sinope, *Herr.-Schæff. Lep. Exot. Sp. Ser.* i. pl. 20, f. 94, (1854).

Female. Pale brown. Abdomen ferruginous. Fore wings hardly pointed, with two double white bands; the first at one-fourth of the length of the wing, angular in front; the second at three-fourths of the length, hardly curved; a white discal spot between them. Hind wings slightly angular, with a white discal spot, and a white single middle band which corresponds with the outer band of the fore wings.

"*Male.* Wings entire, nearly straight; veins arranged as in the typical *Saturniæ*. Palpi not perceptible. Antennæ rather short, consisting of forty-eight joints, each joint with one short ray on each side; the rays set on obliquely and directed backwards, the tips of the rays being turned forwards."—*Westw.*

a, *b*. Port Natal. From M. Gueinzius' collection.

Genus 24. HENUCHA.

Corpus robustum. Palpi brevissimi. Antennæ pectinatæ, apices versus serratæ, thorace non longiores; rami æquales, validi, ciliati, non duplicati. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ anticæ non latæ, plus minusve falcatæ, apices versus vitratæ, apud costæ apicem convexæ, margine exteriore plus minusve concavo et obliquo; posticæ latiores, abdomen plus minusve superantes. *Mas.*—Antennæ latissime pectinatæ. *Fœm.*—Antennæ late pectinatæ.

Henucha, *Hübn. Exot. Schmett.*

Saturnia (Henucha), *Westw.*

Body stout. Palpi very short. Antennæ not longer than the thorax, deeply or very deeply pectinated, except towards the tips, where they are serrated; branches of equal length, stout, ciliated, not in pairs. Legs stout, pilose; hind tibiæ with two minute apical spurs. Fore wings not broad, more or less falcate, convex towards the tip of the costa, more or less oblique and concave along the

exterior border, with an irregular vitreous spot; second inferior vein thrice or four times further from the third than from the first. Hind wings rather broad, extending more or less beyond the abdomen; interior angle occasionally produced. *Male.*—Antennæ more deeply pectinated than those of the female; fore wings more falcate.

1. Henucha Grimmia.

Alæ anticæ nigræ albo irroratæ lunulisque magnis albis, ocello medio fulvo maculam mediam irigatam includente; posticæ basi puniceæ medio albæ maculis duabus nigris, majore ocellum fulvum (cum lunula alba) includente, limbo nigro albo irrorato, maculis marginalibus albidis.

Phalæna (Henucha) Grimmia, *Hübn. Exot. Schmett.* F. 3, 4.
Saturnia (Henucha) Grimmia, *Westw. Proc. Zool. Soc. Lond.* 1849, 59, 29.

South Africa.

2. Henucha Delegorguei.

Alæ anticæ (maris) *valde falcatæ, posticæ subtriangulares; omnes* (fœminæ) *subrotundatæ et parum sinuatæ; anticæ obscure fuscæ basi costa et limbo apicali cinerascentibus, pone medium macula parva vitrea angulata; posticæ basi et antice roseæ, limbo fusco, striga alba; medio nigro, ocello fulvo, lunula vitrea annuloque nigro.*

Saturnia Delegorguei, *Boisd. Voy. de Delegorg. dans l'Afriq. Austr.* ii. 601.
——— ———, *Angas, Plate Amazoolu Lepid.* f. 13.
Saturnia (Henucha?) Delegorguei, *Westw. Proc. Zool. Soc. Lond.* 1849, 59, 30, pl. 10, f. 4.

"Veins of the wings differing from those of the typical *Saturniæ*, in having the outer branch of the postcostal vein arising from the middle of the transverse veinlet which closes the discal areolet, and the two small vitreous spots, forming the angulated spot above described, resting on the outside of the veinlet, being divided from each other by the outer branch of the postcostal vein. *Male.*—Antennæ 32-jointed; each of the fourteen basal joints emitting four rays, the second ray in one joint and the first of the following joint being close together, and only gaping at the tip; rays set on at right angles, lying flat; apical third of the antennæ simple. *Female.*—Antennæ very shortly pectinated on each side, except about one-fourth of the length at the tip."—*Westw.*

Amazoolu Territory.

a, b. Port Natal. From M. Gueinzius' collection.
c. Port Natal. From Mr. Stevens' collection.

3. Henucha Smilax.

Alæ anticæ maris *valde falcatæ obscure fulvæ seu subcinereo-fuscæ, fascia lata obliqua livida seu castanea utrinque linea tenui pallida marginata; anticæ plaga magna subtriloba vitrea; posticæ lunula parva media vitrea.*

———— ————, *Angas, Pl. Amazoolu Lepid.* f. 12.

Saturnia (Henucha?) Smilax, *Westw. Proc. Zool. Soc. Lond.* 1849, 59, 31.

"Veins of the wings arranged as in *H. Delegorguei*, the ocellus of the fore wing resting on the outside of the transverse veinlet closing the discal areolet, and being divided into two parts by the outer branch of the postcostal vein. *Male.*—Fore wings rather narrow, very much hooked at the tip, and angulated beyond the middle of the costa. Antennæ scarcely pectinated beyond the middle, with twenty-two rays on each side; apical half simple, with only numerous short setæ at the extremity of the joints. *Female.*—Fore wings slightly waved along the outer margin. Antennæ quite simple and setaceous.

a, *b*. Port Natal. From M. Gueinzius' collection.

Genus 25. HELICONISA.

Corpus sat gracile. Palpi brevissimi. Proboscis non conspicua. Aptennæ latissime pectinatæ, thorace multo longiores; rami simplices, subæquales, longi, graciles, ciliati. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ vitreæ, latiusculæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore recto parum obliquo; posticæ abdomen paullo superantes. *Fœm.?*—Corpus crassum. Antennæ subserratæ, thorace paullo longiores. Abdomen alas posticas longe superans. Pedes sat validi, dense pilosi. Alæ subvestitæ, sat angustæ; anticæ margine exteriore sat obliquo.

Male. Body rather slender. Proboscis not visible. Palpi very short, not extending so far as the head. Antennæ very deeply pectinated, much longer than the thorax; branches long, slender, ciliated, of nearly equal length, not in pairs. Abdomen slightly pilose. Legs rather slender; hind tibiæ with four moderately long spurs. Wings rather broad, transparent and almost bare, with the exception of the margin. Fore wings nearly straight in front, slightly rounded at the tips, straight and very slightly oblique along

the exterior border; discal areolet intersected by a slight forked veinlet; second inferior vein nearly thrice further from the third than from the first. *Female?*—Body stout. Antennæ minutely serrated, a little longer than the thorax. Abdomen extending far beyond the hind wings. Legs stout, thickly pilose. Wings rather narrow. Fore wings much rounded at the tips, rather oblique along the exterior border; fork of the veinlet in the discal areolet very short; second inferior vein rather more than twice further from the third than from the first.

1. HELICONISA IMPAR.

Mas. *Fulva; antennæ thoracisque dorsum fusca; alæ basim versus rarissime fulvo pilosæ, costa fulva, anticæ margine exteriore ciliaque nigris apud venas testaceis, posticæ margine exteriore inter venas nigro, ciliis testaceis.*

Male. Tawny. Antennæ and most part of the thorax brown. Wings very slightly clothed with tawny hairs towards the base; costa and veins tawny. Fore wings with some black plumes across the tip of the discal areolet; costa black above towards the tip; exterior border and fringe black, with the exception of the spaces opposite the veins, which are testaceous. Hind wings with black spots along the exterior border between the veins; fringe testaceous. Length of the body 12 lines; of the wings 38 lines.

a, *b*. Spirito Sancto, Brazil. From Mr. Stevens' collection.

Fœm.? *Ferruginea; thorax nigro varius; abdominis dorsum nigrum ferrugineo fasciatum; alæ gutta discali nigra fasciisque duabus latis interruptis nigricantibus, fascia una discali, altera marginali.*

Female? Ferruginous. Thorax partly blackish. Abdomen above black, with a ferruginous band on the hind border of each segment. Wings with a black mark at the tip of the discal areolet, and with two bands of blackish streaks between the veins; one band discal, the other exterior; discal mark on the hind wings enclosed in a ferruginous spot. Length of the body 13 lines; of the wings 32 lines.

a. Spirito Sancto, Brazil. From Mr. Stevens' collection.

H. impar may be considered as the type of *Heliconisa*: the following species may constitute a new genus, as its characters are somewhat different.

2. Heliconisa lineosa.

Mas. *Cervina, subtus albida; antennæ fuscæ; abdomen supra luteum; alæ nigro-cinereæ, fascia angusta alba lineisque apud venas testaceis et albis.*

Male. Fawn-colour, whitish beneath. Antennæ brown. Abdomen luteous above. Tarsi black. Wings blackish gray, with a slender white band, which is beyond the discal areolet, and is straight in the fore wings, but curved in the hind wings; a slender white or testaceous stripe along each vein. Fore wings blackish at the base between the veins. Length of the body 9 lines; of the wings 28 lines.

a. ———? From Mr. Children's collection.

Genus 26. MICRATTACUS.

Mas. Corpus robustum. Proboscis non conspicua. Palpi validi, pilosi, brevissimi. Antennæ late pectinatæ, apices versus serratæ, thorace multo breviores. Pedes validi; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ amplæ, maculis nullis vitreis; anticæ falcatæ, apud costam rectæ, margine exteriore obliquo unduloso; posticæ multo latiores, abdomen superantes.

Male. Body stout. Proboscis obsolete. Palpi stout, pilose, very short. Antennæ deeply pectinated, serrated for about one-fifth of the length from the tips, much shorter than the thorax. Abdomen extending to a little beyond three-fourths of the breadth of the hind wings. Legs stout; hind tibiæ with two short apical spurs. Wings ample, without vitreous spots. Fore wings falcate, straight along the costa till near the tips, where they are slightly convex, oblique and deeply undulating along the exterior border; interior angle rounded; second inferior vein thrice further from the third than from the first. Hind wings very much broader than long, much broader than the fore wings.

1. Micrattacus nanus.

Mas. *Rufo-cervinus; antennæ testaceæ; alæ anticæ apud marginem exteriorem ex parte nigricantes, macula discali cana fusco marginata fasciisque duabus gracillimis testaceis fusco ex parte marginatis, una undulosa, altera obliqua; posticæ macula flava fusco marginata, extus pallidiores fascia rufescente.*

Male. Reddish fawn-colour. Antennæ testaceous. Fore wings partly blackish along the exterior border, with a hoary brown-bordered discal spot, and with two very slender testaceous bands; one band towards the base, undulating, bordered with brown on the outer side, the other oblique, beyond the spot, bordered with brown on the inner side. Hind wings with a yellow brown-bordered spot, which is a little smaller than that of the fore wings; exterior half paler, with a reddish band. Length of the body 6—7 lines; of the wings 16—18 lines.

a. Rio Janeiro. From Mr. Stevens' collection.
b. Brazil. From Mr. Argent's collection.
c. Brazil. From Mr. Children's collection.
d, *e.* Brazil.

Genus 27. MIMALLO.

Corpus sat robustum. Proboscis non conspicua. Palpi sat graciles, caput non superantes; articulus 3us acuto-conicus. Antennæ thorace vix breviores. Abdomen alas posticas paullo superans. Pedes validi, non pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ anticæ sat angustæ, apud costam rectæ, apice angulatæ, margine exteriore plus minusve obliquo.

Mimallo, *Hübn. Verz. Schmett.* 190.
Phalæna-Bombyx Attacus, p., *Cram.*

Body rather stout. Proboscis not visible. Palpi rather slender, not extending beyond the head; third joint acutely conical. Antennæ hardly shorter than the thorax. Abdomen extending a little beyond the hind wings. Legs stout, not pilose; hind tibiæ with two minute apical spurs. Fore wings rather narrow, angular at the tips, more or less oblique along the exterior border.

This genus is very nearly allied to *Perophora*, one of the *Psychidæ*.

A. Alæ posticæ non rufo aut ferrugineo variæ.
  A. Alæ purpureo fasciatæ. - - - - Amilia, *Cram.*
  B. Alæ purpureo non fasciatæ. - - - - plana, *Walk.*
B. Alæ posticæ rufo aut ferrugineo variæ.
  A. Alæ purpureo variæ. - - - - saturata, *Walk.*
  B. Alæ non purpureo variæ.
    a. Alæ posticæ fascia rufa aut ferrugineo.
      a. Abdomen rufo vittatum. - - - despecta, *Walk.*
      b. Abdomen rufo non vittatum. - - plagiata, *Walk.*
    b. Alæ posticæ fere totæ rufæ aut ferrugineæ. Verago, *Cram.*

Group 1.

Fœm. Palpi pilosi, caput non superantes; articulus 3us obtusus, 1i dimidio brevior. Antennæ latissime pectinatæ, thorace non longiores. Abdomen alas posticas paullo superans. Alæ anticæ apud costam convexæ, apice subfalcatæ, ad angulum interiorem subincisæ; posticæ apice truncatæ subobtusæ, margine exteriore subdentato.

Female. Palpi pilose, not extending beyond the head; first joint short; third obtuse, less than half the length of the second. Antennæ very deeply pectinated, not longer than the thorax. Abdomen extending a little beyond the hind wings. Fore wings convex along the costa, very slightly falcate at the tips, oblique along the exterior border, slightly indented by the interior angle; three inferior veins; second rather further from the third than from the first. Hind wings truncated and slightly obtuse at their tips, very slightly scalloped along the exterior border.

1. Mimallo Amilia.

Fœm. *Cinerea; antennæ testaceæ; abdomen fasciis tribus posterioribus purpureo-cupreis; pedes cani.*

Phalæna-Bombyx Attacus Amilia, *Cram. Pap. Exot.* iii. 130, pl. 265, f. D, E.
Mimallo Amilia, *Hübn. Verz. Schmett.* 190, 195, 6.
Phalæna vorax, *Anon. Ins. Surin.* i. 47, pl. 20.

Surinam.

Female. Cinereous. Antennæ testaceous. Abdomen with three purplish cupreous bands on its hinder half. Legs hoary. Wings silvery gray, with numerous minute whitish black-tipped flecks, with a curved undulating interrupted purplish cupreous band at one-fourth of the length, and with a cupreous-purple oblique band, which is much dilated near the tip of the costa and then suddenly becomes narrow, and thence gradually widens to near its termination by the middle of the interior border; it is accompanied on its inner side by a cupreous line, its outer border is undulating; fringe partly blackish. Fore wings with a rather large purple ocellus, whose silvery border has a cupreous margin; it contains two limpid small elongated oblique nearly contiguous spots. Pupa inclosed in a very large silky cocoon.

The larva of this species lives in a case which it constructs of pieces of wood and of grains of sand.

a, *b*. Brazil. Presented by W. W. Saunders, Esq.
c. Brazil. From Mr. Stevens' collection.

Group 2.

Mas. Palpi sat graciles, caput vix adæquantes; articulus 1us brevis; 3us acuto-conicus. Antennæ mediocriter pectinatæ, thorace vix breviores. Abdomen alas posticas paullo superans. Alæ anticæ apud costam subrectæ, apice angulatæ, margine exteriore obliquo.

Male. Palpi rather slender, not extending quite so far as the head; first joint short; third acute-conical. Antennæ moderately pectinated, nearly as long as the thorax. Abdomen with two tufts at the tips, extending for one-fourth of its length beyond the hind wings. Fore wings straight along the costa till near the tips, where they are slightly convex, rectangular at the tips, oblique along the exterior border; interior angle obtuse and somewhat rounded; three inferior veins; first and second approximate at the base; third remote.

2. Mimallo despecta.

Mas. *Pallide testacea, nigro conspersa; capitis vertex et thorax anticus rufescentes; antennæ fulvæ; abdomen vitta lata rufa dorsali; alæ nigro notatæ fasciis duabus, una gracili obliqua nigra, altera exteriore rufa; anticæ macula parva limpida discali subdivisa.*

Male. Pale testaceous, with numerous black flecks. Vertex of the head and thorax in front reddish. Antennæ tawny. Abdomen with a broad red dorsal stripe. Wings with a slender oblique black band, which extends from the tips of the fore wings to the middle of the interior border of the hind wings; it is accompanied on its outer side by a red band, which widens in its progress from the tips of the fore wings; some diffused blackish marks in the disks of the wings; under side with no bands, much more thickly flecked with black than the upper side. Fore wings with a small limpid half-divided discal spot. Length of the body 10 lines; of the wings 30 lines.

Rio Janeiro. In Mr. Fry's collection.

3. Mimallo plana.

Mas. *Fusca, nigro conspersa; caput, antennæ, thorax anticus alæque anticæ basi et apud costam cervina; alæ fascia gracili perobliqua nigricante fasciaque exteriore pallide testacea, anticæ ocello nigricante cervino marginato.*

Male. Brown, flecked with black. Head, antennæ, fore part of the thorax and fore wings about the base and along the costa fawn-colour. Wings with a slender very oblique blackish band, which is like that of *M. despecta* in form and place, and is accompanied on its outer side by a pale testaceous band. Fore wings with a blackish fawn-colour bordered ocellus.

The male much resembles the female, but may be distinguished by its smaller size, its more falcate and acuminated fore wings and their more oblique exterior border; its hind wings also form a much smaller angle between their exterior and interior borders. Length of the body 7 lines; of the wings 16 lines.

Brazil. In Mr. Saunders' collection.

Var.? *Male.* Whitish testaceous, shining, very minutely flecked with black. Antennæ testaceous. Fore wings testaceous along the costa, with a slightly oblique testaceous streak at one-fourth of the length, and with another extending from near the base of the costa to the small oblique black discal spot; a brown oblique band at three-fourths of the length, forming a nearly right angle near the tip, to which it emits a blackish branch, and there is also a blackish streak extending from the outer middle of this band to the interior angle; a very slender blackish streak extends in the disk from near the base towards the above band; exterior border partly bordered with brown. Hind wings with the brown band, which is slightly curved, and with the blackish streak towards the interior angle. Length of the body 5 lines; of the wings 13 lines.

Rio Janeiro. In Mr. Fry's collection.

Fœm.? *Cervina, nigro subconspersa; alæ fascia gracili perobliqua fusca, extus albido-testaceæ cervino marginatæ.*

Female? Fawn-colour, slightly flecked with black. Wings with a slender very oblique brown band, which extends from a little beyond the middle of the interior border of the hind wings to a short space from the tips of the fore wings, where it is abruptly retracted to the costa; the wings beyond it are whitish testaceous, with pale fawn-coloured borders. Length of the body 8 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

Group 3.

Fœm. Corpus robustum. Caput et thorax dense pilosa. Palpi porrecti, caput non superantes; articulus 3us lanceolatus, gracillimus. Antennæ graciles, subserratæ, thorace non longiores. Pedes breves; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latissimæ; anticæ apud costam convexæ, apice angulatæ, margine exteriore subobliquo; posticæ abdomen paullo superantes.

Female. Body stout. Head and thorax thickly pilose. Palpi porrect, not extending beyond the head; second joint more than twice the length of the first; third lanceolate, very slender, not more than one-fourth of the length of the second. Antennæ slender, very minutely serrated, not longer than the thorax. Abdomen extending to about three-fourths of the breadth of the hind wings. Legs short; hind tibiæ with two minute apical spurs. Wings very broad. Fore wings convex along the costa, forming a slightly acute and well-defined angle at their tips, very slightly oblique along the exterior border; interior angle rounded; three inferior veins; second very much further from the third than from the first. Hind wings with the interior angle more distinct than that of the fore wings.

4. Mimallo saturata.

Fœm. *Rufo-fusca; palpi et antennæ testacea; thoracis latera postica et pectus luteo pilosa; abdomen luteum, flavo ex parte pilosum, fasciis duabus lateralibus ochraceis, apice luteo; pedes rufi, femoribus tibiisque luteo pilosis; alæ anticæ purpurascentes, macula parva transversa testacea nigro marginata fasciaque gracili albida subobliqua extus nigro marginata; posticæ rufescentes, basim versus ex parte luteæ, fascia media purpurascente gracili perobliqua.*

Female. Reddish brown. Palpi and antennæ testaceous. Thorax with luteous hairs on each side by its hind border. Pectus luteous. Abdomen red, partly clothed with yellow hairs, with an orange stripe along each side; tip luteous. Legs red; femora and tibiæ with luteous hairs. Fore wings with a slight purplish tinge for two-thirds of their length from the tips, with a small transverse pale testaceous black-bordered discal spot, and with a whitish slender slightly oblique band, which has a blackish border on its outer side, and extends from near the tip of the costa to three-fourths of the length of the interior border. Hind wings reddish, with a

purplish slender very oblique middle band, which is most distinct on the inner side, and there the wings are partly luteous. Length of the body 9 lines; of the wings 26 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 4.

Mas. Palpi breves, caput non adæquantes; articulus 3us minutus, conicus. Antennæ late pectinatæ, thoracis longitudine, apices versus subnudæ. Abdomen alas posticas fere superantes. Pedes graciles, pilis sat longis vestiti. Alæ mediocriter latæ, anticæ apud costam rectæ, apice falcatæ, margine exteriore perobliquo subundulato.

Male. Palpi short, not extending so far as the head; first joint very short; third minute, conical. Antennæ deeply pectinated, as long as the thorax; the branches becoming very short towards the tips. Abdomen slightly oblanceolate, extending full as far as the hind wings. Legs slender; femora and tibiæ with rather long hairs. Wings moderately broad. Fore wings straight along the costa, falcate at the tips, very oblique and slightly undulating along the exterior border; interior angle distinct, but very obtuse; three inferior veins; second much nearer to the first than to the third.

5. Mimallo plagiata.

Mas. *Albido-cervino; alæ nigro parce conspersæ; anticæ basi, costa, macula discali fasciaque angusta angulata extus fusco marginata albidis, strigisque nonnullis rufescentibus; posticæ striga rufescente.*

Male. Pale fawn-colour, with a whitish tinge. Wings with a few black flecks. Head whitish. Antennæ white, with testaceous branches. Fore wings whitish along the costa and at the base, and with an oblique whitish discal spot; some reddish streaks in the disk; a very oblique slender white band at three-fourths of the length, forming a very acute angle near the tip, partly bordered with brown on its inner side; the latter colour has a reddish border. Hind wings much like the fore wings, but without the streaks and discal spot; the reddish hue extends beyond the band by the interior angle. Length of the body 8 lines; of the wings 18 lines.

Rio Janeiro. In Mr. Fry's collection.

6. Mimallo? Verago.

Mas. *Ferruginea; abdomen testaceum; alæ anticæ nigro conspersæ, margine interiore basi fasciis tribus nigro marginatis maculaque exteriore testaceis, fascia nigra annuloque albo; posticæ striga transversa cervina fasciaque testacea nigro marginata.* Fœm.—*Corpus et alæ apud margines cervina; alæ anticæ fuscæ, fasciis nigricantibus duabusque purpurascentibus latioribus, fascia angulata basali annuloque discali testaceis; posticæ ferrugineæ, fascia exteriore testacea antice fusco marginata.*

Phalæna Verago, *Cram. Pap. Exot.* ii. 102, pl. 162, f. D. E. mas; iv. 34, pl. 306, f. D. E. fœm.?

Mimallo Verago, *Hübn. Verz. Schmett.* 190, 1955.

Male. Ferruginous. Abdomen testaceous. Fore wings sprinkled with black, pale testaceous towards the base of the interior border, with a black band which is interrupted by a white discal ringlet, with three testaceous black-bordered bands, and with a testaceous spot between the second and third bands. Hind wings with a transverse fawn-coloured streak, and with a testaceous black-bordered band. Under side whitish, varied with rose-colour and brown; hind wings also varied with white and fawn-colour. *Female?*—Body fawn-colour. Wings fawn-colour along the exterior border. Fore wings brown, with two or three narrow blackish and with two broader purplish bands, with an acutely angular testaceous band near the base, and with a black discal dot, which has a broad testaceous border. Hind wings ferruginous, with an exterior testaceous band, which is bordered with brown in front. Under side with various colours.

Surinam.

Genus 28. MICRAGONE.

Mas. Corpus sat gracile. Proboscis non conspicua. Palpi breves, pilosi, porrecti, caput non superantes. Antennæ late pectinatæ, apices versus simplices, thorace paullo longiores, ramis duplicatis æqualiter longis. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ non ocellatæ; anticæ falcatæ, sat angustæ, costa apicem versus convexæ, margine exteriore concavo perobliquo; posticæ latæ, denticulatæ, abdomen triente superantes.

Saturnia, p., *Westwood.*

Male. Body moderately slender. Proboscis not visible. Palpi short, pilose, porrect, not extending beyond the head. Antennæ deeply pectinated, simple and setose towards the tips, very little longer than the thorax; one branch in each pair more slender, but almost as long as the other, which is ciliated. Legs stout; hind tibiæ with two short apical spurs. Wings without ocelli. Fore wings falcate, rather narrow, convex towards the tip of the costa, rounded at the tips, concave and very oblique along the exterior border; second inferior vein as far from the first as from the third. Hind wings broad, denticulated along the exterior border, extending for one-third of their breadth beyond the abdomen.

1. Micragone Agathylla.

Alæ anticæ subfalcatæ, posticæ denticulatæ; supra pallide rufo-fulvæ, in medio ut videtur exocellatæ.

Saturnia Agathylla, *Westw. Proc. Zool. Soc. Lond.* 1849, 58, 28.

"Described from an injured specimen. Fore wings subfalcate. Hind wings denticulated along the outer margin, the tooth at the extremity of the middle branch of the median vein being the most acute. Palpi quite distinct, scarcely extending beyond the hairs of the face. Antennæ furnished each with eighty rays; basal joint clothed beneath with a thick mass of hairs; each of the twenty succeeding joints emitting four rays, one close at the base and one close at the apex on each side, the inside of the two on each side furnished with fine hairs, the tips of which come in contact with each other; thirteen terminal joints destitute of rays."—*Westw.*

a. Congo. Presented by Sir J. Richardson.

Genus 29. CYRTOGONE.

Corpus robustum. Proboscis brevissima. Palpi breves, validi, porrecti, caput non superantes; articulus 3us conicus, minimus. Antennæ mediocriter pectinatæ, apices versus simplices, thorace paullo breviores, ramis validis non duplicatis. Pedes validi. Alæ longiusculæ, non latæ nec ocellatæ; anticæ subfalcatæ, apice obtusæ, costa apicem versus convexa, margine exteriore dentato perobliquo; posticæ abdomen paullo superantes, margine exteriore denticulato.

Saturnia, p., *Westw.*

Body stout. Proboscis extremely short and feeble. Palpi short, stout, porrect, hardly extending as far as the head; third joint conical, very small. Antennæ moderately pectinated, bare towards the tips, a little shorter than the thorax; branches single, stout. Legs stout. Wings rather long, not broad, without ocelli. Fore wings slightly falcate, obtuse at the tips, slightly convex towards the tip of the costa; exterior border notched, very oblique; second inferior vein nearly thrice further from the third than from the first. Hind wings denticulated along the exterior border, extending a little beyond the abdomen.

1. Cyrtogone Herilla.

Alæ apice undulatæ; anticæ angulatæ fusco-fulvæ valde irroratæ, medio fulvescente fascia obliqua fusca abbreviata; posticæ macula magna sulphurea, limbo lato fusco, fulvo irrorato.

Saturnia Herilla, *Westw. Proc. Zool. Soc. Lond.* 1849, 57, 27, pl. 10, f. 3.

Antennæ but slightly pectinated.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.
b. ———?

2. Cyrtogone? Nænia.

Alæ anticæ apice rotundatæ, plumbeo-nigræ apicibus magis fuscis luteoque irroratæ, striga tenui irregulari nigra obliqua ante medium alteraque minus distincta at magis obliqua, et ad costam valde angulata, macula media irregulari albida; posticæ nigricanti-fuscæ basi puniceæ macula magna media pallide flava.

Saturnia Nænia, *Westw. Proc. Zool. Soc. Lond.* 1849, 57, 26, pl. 9, f. 3.

Fem. "Fore wings broad, with the fore margin rather suddenly angulated beyond the middle, and with the apical margin rounded, the extreme tip forming a small, rounded, slightly detached lobe. Palpi porrected into a short distinct muzzle. Antennæ with twenty-two joints, emitting only a pair of rays from the base of each, the apical pair being indicated by a very slight serration, followed by about twelve joints at the tip, which are destitute of rays." —*Westw.*

This species differs from *C. Herilla* in the structure of its wings, which are not denticulated, and may constitute a new genus.

South Africa.

Genus 30. MOLIPPA.

Corpus sat robustum. Proboscis non conspicua. Palpi breves, caput non superantes. Antennæ thorace multo breviores. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus brevissimis apicalibus. Alæ longiusculæ, sat angustæ, ocellis maculisque vitreis nullis; anticæ apud costam plus minusve convexæ, margine exteriore plus minusve obliquo. *Mas.*—Antennæ late pectinatæ, ramis duplicatis ciliatis. Alæ anticæ subfalcatæ, margine exteriore subconcavo. *Fœm.*—Antennæ serratæ.

Body moderately stout. Proboscis obsolete. Palpi short, not extending beyond the head. Antennæ much shorter than the thorax. Abdomen extending as far as the hind wings. Legs stout, pilose; hind tibiæ with two very short apical spurs. Wings rather long and narrow, without ocelli and vitreous spots. Fore wings more or less convex in front, oblique or very oblique along the exterior border; interior angle rounded; second inferior vein full thrice further from the third than from the first. *Male.*—Antennæ deeply pectinated; branches in pairs, ciliated; one in each pair a little shorter than the other. Fore wings slightly falcate; exterior border slightly concave in the middle. *Female.*—Antennæ serrated.

1. Molippa Sabina.

Mas et fœm. *Albida; antennæ fulvæ; thorax fusco varius, pilis plurimis longis lanceolatis nigris; abdomen supra luteum, nigro fasciatum, albo pilosum; alæ anticæ fasciis duabus duplicatis annuloque fuscis, necnon macula apicali fusca plagaque exteriore cinerea; posticæ fasciis duabus exterioribus cinereis fasciaque submarginali fulva.*

Io Sabina, *MSS.*

Whitish. Antennæ tawny. Thorax partly brown, with numerous long lanceolate black hairs. Abdomen above bright luteous, with black bands, and with numerous long white hairs. Legs mostly clothed with whitish hairs. Fore wings mostly pale brown, with two slender double undulating brown bands, and with a very large irregular discal brown circlet; a brown spot at the tip of the costa and a grayish space along the hinder exterior border of the outer band. Hind wings blackish along the interior border, with two exterior gray bands, and with a slender tawny submarginal band. Length of the body 11—14 lines; of the wings 30—38 lines.

a, *b*. Brazil. From M. Becker's collection.

Genus 31. DIRPHIA.

Corpus crassum aut sat validum. Proboscis non conspicua. Palpi pilosi, caput rarissime superantes. Abdomen alas posticas rarissime superans. Pedes plus minusve validi et pilosi; tibiæ posticæ vix calcaratæ. Alæ plus minusve latæ; anticæ apud apices sæpissime rotundatæ; posticæ sæpe abdomen superantes. *Mas.*—Antennæ pectinatæ. *Fœm.*—Antennæ simplices aut serratæ, rarissime pectinatæ.

Dirphia, Phricodia, Periphoba, Plateia et Hylesia, *Hübn. Verz. Schmett.* 153, 186, 187.
Phalæna-Bombyx Attacus, p., *Linn.; Cram.; Gmel.*
Bombyx, p., *Fabr.; Oliv.; Feisth.*
Metanastria? *Hübn. Verz. Schmett.* 186.
Ormiscodes, *Blanch.*

Body thick or rather stout. Proboscis not visible. Palpi pilose, very generally not extending beyond the head. Abdomen very rarely extending beyond the hind wings. Legs more or less stout and pilose; hind tibiæ with two very short apical spurs. Wings more or less broad. Fore wings very generally rounded at the tips. Hind wings frequently extending beyond the abdomen. *Male.*—Antennæ pectinated. *Female.*—Antennæ simple or serrated, very rarely pectinated.

Some of the sections into which this genus is divided may, perhaps, be considered as distinct genera.

A. Alæ anticæ litura discali.
  A. Alæ anticæ gutta discali.
    a. Abdomen alas posticas non superans.
      a. Thorax fuscus.
        i. Alæ posticæ bifasciatæ.
          * Alæ anticæ margine exteriore non glauco.
            † Abdomen nigro fasciatum. - Calchas, *Cram.*
            †† Abdomen fusco fasciatum. - Ursina, *MSS.*
          ** Alæ anticæ margine exteriore glauco. Hircia, *Cram.*
        ii. Alæ posticæ unifasciatæ.
          * Alæ anticæ gutta discali alba. cinnamomea, *Blanch.*
          ** Alæ anticæ gutta discali nigra. - Amalia, *Cram.*
      b. Thorax fulvescens.
        i. Abdomen supra nigrum. - - plana, *Walk.*
        ii. Abdomen non nigrum. - - undulosa, *Walk.*
      c. Thorax fuscus, postice roseus. - - rosacordis, *Walk.*

d. Thorax pallide luteus. - - - satellitia, *Walk.*
B. Abdomen alas posticas superans. - - vagans, *Walk.*
B. Alæ anticæ macula transversa discali. purpurascens, *Walk.*
C. Alæ anticæ striga discali.
A. Alæ posticæ rufescentes.
a. Alæ albo variæ. - - - - Polybia, *Cram.*
b. Alæ albo non variæ. - - - somniculosa, *Cram.*
B. Alæ posticæ non rufescentes. - - - litura, *Walk.*
D. Alæ anticæ plaga discali.
A. Abdomen nigrum. - - - pulchricornis, *Walk.*
B. Abdomen ferrugineum. - - - Tarquinia, *Cram.*
C. Abdomen luteum. - - - - - varia, *Walk.*
E. Alæ anticæ striga angulata discali.
A. Abdomen fulvum. - - - - angulifera, *Walk.*
B. Abdomen nigrum. - - - - speciosa, *Cram.*
B. Alæ anticæ litura nulla discali.
A. Abdomen non fasciatum.
A. Alæ fuscæ. - - - - - - nubila, *Walk.*
B. Alæ cinereæ. - - - - - Orasia, *Cram.*
C. Alæ ferrugineæ. - - - - - rustica, *Cram.*
B. Abdomen fasciis roseis. - - - - semirosea, *Cram.*
C. Abdomen fasciis rufis.
A. Alæ anticæ plaga trigona. - - triangulum, *Walk.*
B. Alæ anticæ plaga nulla trigona. - - concolor, *Walk.*
D. Abdomen fasciis luteis.
A. Antennæ fulvæ.
a. Alæ posticæ non fasciatæ. - - multicolor, *Walk.*
b. Alæ posticæ trifasciatæ. - - - - Avia, *Cram.*
c. Alæ posticæ unifasciatæ. - - Eumenides, *Cram.*
B. Antennæ fuscæ. - - - - - obtusa, *Walk.*
C. Antennæ nigræ. - - - - - - Agis, *Cram.*
E. Abdomen fasciis testaceis. - - - Aconyta, *Cram.*

Group 1.

Mas. Corpus crassum, dense pilosum. Palpi breves, validi, pilosi, caput non superantes. Antennæ mediocriter pectinatæ, thorace vix breviores; rami ciliati, duplicati, inæquales. Pedes robusti, pilosi; tibiæ posticæ calcaribus duobus apicalibus brevissimis. Alæ anticæ mediocriter latæ, dense pilosæ; anticæ vix angulatæ, apud costam subconvexæ, margine exteriore recto subobliquo.

Body very stout, densely pilose. Proboscis obsolete. Palpi short, stout, pilose, hardly extending so far as the head. Antennæ

moderately deeply pectinated, nearly as long as the thorax; branches ciliated, in pairs, one in each pair rather shorter than the other. Abdomen extending nearly as far as the hind wings. Legs very stout and pilose; fore tibiæ with a lateral appendage; hind tibiæ with two very short apical spurs. Wings moderately broad, densely pilose, especially towards the base. Fore wings very slightly convex in front, hardly angular at the tips, straight and slightly oblique along the exterior border; interior angle rounded; second inferior vein very much further from the third than from the first.

1. Dirphia Tarquinia.

Mas. *Fulva; thorax niger; alæ anticæ albidæ, macula nigra albo cincta alboque furcatim vittata, vitta brevi costali subapicali flava basi apiceque nigra, fasciaque apicem versus e maculis nigris; posticæ albo marginatæ, nigro unimaculatæ fuscoque arcuatim bifasciatæ.* Fœm. — *Nigro-fusca; alæ anticæ fascia ad basim fulva albo marginata, vitta discali furcata alba, fasciaque ante apicali alba guttis albis marginata; posticæ fulvæ fusco testaceoque marginatæ, strigaque in disco transversa brevi undulata nigra.*

Phalæna-Bombyx Attacus Tarquinia, *Cram. Pap. Exot.* i. 6, 7, pl. 4, f. A—C.; iv. 148, pl. 367, f. F. *Gmel. ed. Syst. Nat.* i. 5, 2419, 521; 2420, 522.

Bombyx Tarquinia, *Fabr. Sp. Ins.* ii. 198, 120, 121; *Mant. Ins.* ii. 128, 170, 171; *Ent. Syst.* iii. 1, 469, 194; 470, 195.

Echidna communiformis Tarquinius, *Hübn. Samml. Exot. Schmett.* i. *Lep.* iii. *Bomb.* i. *Sphingoides*, v. *Echidnæ*, B. *Communiformes*, b. f. 1, 2.

Echidna communiformis Tarpeius, *Hübn. Samml. Exot. Schmett.* i. *Lep.* iii. *Bomb.* i. *Sphingoides*, v. *Echidnæ*, B. *Communiformes*, b. f. 3, 4.

Dirphia Tarquinia, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Lunatæ Communiformes*) 153, 1595.

Dirphia Acidalia, *Hübn. Verz. Schmett.* 153, 1596.

a, *b*. Brazil. From M. Parzudaki's collection.
c. Brazil. From M. Becker's collection.
d, *e*. Brazil.

2. Dirphia Calchas.

Mas. *Ferrugineo-rufa; caput, palpi et thorax ex parte fusco hirta; antennæ testaceæ; abdomen fasciis dorsalibus nigris; tibiæ tarsique supra fusca; alæ anticæ obscure cervinæ, basi fasciaque cinereis, macula discali nigro-fusca, alteraque antica pallide fusca fasciaque obliqua albida; posticæ fasciis duabus fuscis maculaque discali nigricante.*

Phalæna-Bombyx Attacus Calchas, *Cram. Pap. Exot.* iv. 25, pl. 303, f. A.

In Cramer's figure the four wings are alike in colour, and the bands of the fore wings are blackish.

Male. Ferruginous-red. Head, palpi and thorax partly clothed with brown hairs. Antennæ testaceous. Abdomen with black dorsal bands. Tibiæ and tarsi brown above. Fore wings dull fawn-colour, grayish, with some whitish hairs at the base, and with an indistinct exterior grayish undulating band; a transverse oblong blackish brown pale-bordered discal spot, in front of which there is a large pale brown spot which extends to the costa; under side like that of the hind wings paler, and with an oblique whitish band. Hind wings above towards the exterior border fawn-colour, with two brown exterior bands; a blackish discal spot. Length of the body 15 lines; of the wings 42 lines.

Female. Like the male, but without the costal brown spot. Length of the body 16—18 lines; of the wings 45—50 lines.

a. Brazil. From M. Becker's collection.
b—d. Rio Janeiro. From Mr. Stevens' collection.

3. Dirphia Avia.

Fœm. *Fusca; antennæ fulvæ; abdomen rufo-luteum, nigro fasciatum; alæ nigro-cinereæ; anticæ margine exteriore fasciisque duabus pallidioribus; posticæ fasciis tribus exterioribus obscurioribus, basi ferrugineæ.*

Phalæna-Bombyx Attacus Avia, *Cram. Pap. Exot.* iv. 36, pl. 307, f. A.

Phricodia Avia, *Hübn. Verz. Schmett.* 187, 1923.

Female. Brown. Antennæ tawny. Abdomen reddish luteous, with black bands. Wings blackish gray. Fore wings paler along the exterior border, and with two paler bands which converge towards the interior border, the space between them rather more brown than the wings elsewhere. Hind wings ferruginous towards the base, with three exterior dark bands.

Surinam.

4. Dirphia Orasia.

Fœm. *Cervina; alæ cinereæ; anticæ basi fasciaque latissima pallidioribus, plagaque trigona discali apiceque nigricantibus; posticæ obscuriores.*

Phalæna-Bombyx Orasia, *Cram. Pap. Exot.* iv. 219, pl. 395, f. D.
Hylesia Orasia, *Hübn. Verz. Schmett.* 186, 1921.

Female. Fawn-colour. Wings gray. Fore wings paler at the base, and with a very broad paler band, which includes a large blackish triangular patch, the latter attenuated towards the interior border; tips blackish. Hind wings rather darker than the fore wings.

Surinam.

5. Dirphia Polybia.

Cervina; alæ anticæ fuscæ, basi albæ; posticæ rufæ, apud apices fuscæ. Mas.—*Alæ anticæ plagis duabus maximis rufis ex parte nigro marginatis, striga subpurpurea, litura discali rufa, maculaque postica trigona alba.* Fœm.—*Alæ anticæ litura discali ferruginea elongata, fascia perobliqua nigra, macula postica alba elongata.*

Phalæna Attacus Polybia, *Cram. Pap. Exot.* iv. 154, pl. 369, f. A, B.

Male and female. Fawn-colour. Fore wings brown, white at the base. Hind wings red, brown along the border about the tips. *Male.*—Fore wings with two large red spaces mostly bordered with black, one near the base, the other towards the exterior border and joining the first on the interior border, and with its black border extending beyond it to a little in front of the tip of the wing; a lilac streak in front along the above black line, a transverse red discal spot, and a white triangular spot near the interior border, enclosed on two sides by the black line. *Female.*—Fore wings without red; discal spot ferruginous, much elongated; a very oblique black band, adjoining towards the interior border the hind white spot, which is much more elongated than in the male; tips lilac.

Surinam.

6. Dirphia triangulum.

♂ ♀ Mas et fœm. *Nigro-fusca ; antennæ testaceæ ; abdomen fasciis pilisque rufis ; pedes ex parte rufo hirti ; alæ subtus cervinæ fasciis duabus fuscescentibus, anticæ subpurpureæ fascia diffusa viridi-fusca maculaque maxima viridi subtrigona costali ; posticæ purpureo-fuscæ, basi rufo-ferrugineæ, cervino bifasciatæ.*

Male. Blackish brown. Antennæ pale testaceous. Abdomen with red bands and long red hairs. Legs partly clothed with reddish hairs. Wings beneath fawn-colour, pale brownish at the base and in front, and with two indistinct pale brownish bands. Fore wings pale dull purplish, with a very diffuse and indistinct greenish brown band, and with a very large dull green irregularly triangular costal spot. Hind wings purplish brown, ferruginous-red towards the base, and with two dull fawn-coloured bands, the first near the second, which is marginal. Length of the body 13 lines; of the wings 38 lines.

Female.—Blackish brown. Head and thorax black, with some reddish hairs. Antennæ dark testaceous, brown towards the tips, not longer than the thorax. Abdomen above black, with some red hairs, which towards the base and towards the tip are longer and dispersed irregularly, thinly covered also with very long white hairs. Fore wings blackish brown, minutely sprinkled with white hairs, black at the base, with a small white discal spot, whose disk is luteous, with a few black hairs; this spot is between two dark linear bands, which are united near the interior border, the inner one angular, the outer one straight; there is also a diffuse undulating darker band near the exterior border. Hind wings brown, sprinkled with white for one-fourth of the length from the exterior border, which part contains two curved darker bands, and there is a still darker mark in the disk. Length of the body 16 lines; of the wings 48 lines.

a, *b*. Rio Janeiro. From Mr. Stevens' collection.

Group 2.

Corpus robustum. Palpi breves, porrecti, caput non superantes. Antennæ thoracis longitudine. Alæ latæ; anticæ vix acuminatæ, apud costam subrectæ, margine exteriore recto mediocriter obliquo. *Mas.*—Antennæ late pectinatæ; rami validi ciliati, exteriores inæqualiter duplicati. Alæ posticæ abdomen paullo superantes. *Fœm.*—Antennæ simplices. Alæ posticæ abdomen vix superantes.

Male and female. Body stout. Palpi short, porrect, extending hardly so far as the head. Antennæ as long as the thorax. Wings broad. Fore wings slightly acuminated and almost rectangular at the tips, nearly straight in front, straight and moderately oblique along the exterior border; second inferior vein about thrice further from the third than from the first. *Male.*—Antennæ deeply pectinated; branches stout, ciliated; each exterior branch accompanied by a slender branch, which is not half the length of the other. Abdomen extending to three-fourths of the breadth of the hind wings. *Female.*—Antennæ simple. Hind wings hardly extending beyond the abdomen.

7. Dirphia Ursina.

Mas et fœm. *Fusca aut ferrugineo-fusca; antennæ testaceæ; abdomen sæpissime ferrugineo fasciatum; alæ gutta discali fasciisque duabus obscurioribus, anticæ gutta antica albida nonnunquam obsoleta.*

Bombyx Ursina, *MSS.*

Male. Body and legs blackish brown. Antennæ testaceous. Wings brown, paler along the exterior border, each with a brown discal dot. Fore wings with a whitish dot in front of the brown one, and with two slender dark brown bands, which converge towards the interior border. Hind wings with two exterior curved dark brown bands. *Female.*—Abdomen with a ferruginous band on the hind border of each segment. Wings a little paler than those of the male; whitish dot of the fore wings less distinct; bands less converging hindward. Length of the body 12—16 lines; of the wings 34—48 lines.

Var. β. Male. Ferruginous-brown. Abdomen above dark brown, with reddish bands. Fore wings with the whitish dot obsolete; bands converging much less than in *var. α.*

Var. γ. Fem. Fore wings with a distinct whitish dot; bands converging more than in *var. α.*

Var. δ. Fem. Like *var. γ.* Discal brown dot of the fore wings with a whitish ringlet.

a. Bolivia. From Mr. Bridges' collection.
b—d. Brazil. From M. Becker's collection.
e, f. Rio Janeiro. From Mr. Stevens' collection.

8. Dirphia cinnamomea.

Fusca, dense longeque pilosa; alæ fusco-rufescentes; anticæ, strigis duabus obscurioribus maculaque media albida; posticæ striga sinuato fusco-nigra, punctoque medio lineari nigro.

Bombyx cinnamomea, *Feisth. Voy. de la Favorite; Mag. de Zool.* 2me *Sér.* pl. 22, f. 2.

Bombyx crinita, *Blanch. Gay's Hist. Nat. Chile, Atlas, Zool. Lép.* pl. 4. f. 4.

Ormiscodes cinnamomea, *Blanch. Gay's Hist. Nat. Chile, Zool.* vii. 61.

Female. Cinereous. Head, band in front and middle of the hind part of the thorax and sides of the abdomen lutëous. Fore wings brown, gray at the base, somewhat testaceous along the exterior border and along the borders of two darker brown bands; first band zigzag, and having between it and the transverse testaceous discal spot a blackish angular mark, which contains a blackish spot. Hind wings dingy testaceous, with a paler testaceous discal spot, and with three pale brown bands; third band marginal.

Chili.

Group 3.

Fœm. Alæ longiusculæ, vix latæ; anticæ apud costam subconvexæ, apice subrotundatæ, margine exteriore recto mediocriter obliquo; posticæ abdomen perpaullo superantes.

Female. Wings rather long, hardly broad. Fore wings very slightly convex in front; apical angle somewhat rounded; exterior border straight and moderately oblique; second inferior vein twice further from the third than from the first. Hind wings extending very little beyond the abdomen.

9. Dirphia concolor.

Fœm. *Fusca; antennæ albidæ; abdomen rufescens, fasciis nigris pilisque longissimis testaceis; alæ anticæ basi antice cinereæ postice nigricantes, fasciis duabus angustis canis, margine exteriore cinereo; posticæ fasciis duabus subobsoletis exterioribus obscurioribus.*

Female. Brown. Antennæ whitish. Abdomen reddish, with black bands and with very long testaceous hairs. Fore wings hoary at the base in front and along the exterior border, dark brown on

the hinder part of the base; two hoary bands, which converge towards the interior border, the one near the base, blackish along the exterior border, the other beyond two-thirds of the length of the wing, blackish along the interior border; under side with two indistinct exterior bands. Hind wings slightly ferruginous at the base, with two indistinct exterior darker bands. Length of the body 17 lines; of the wings 56 lines.

a. Venezuela. From Mr. Dyson's collection.

Group 4.

Fœm. Corpus robustum. Palpi caput adæquantes. Antennæ graciles, serratæ, setosæ, thorace paullo longiores. Thorax utrinque fasciculatus. Alæ latæ, longiusculæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriore subconvexo sat obliquo; posticæ abdomen non superantes.

Female. Body stout. Palpi extending as far as the head. Antennæ slender, serrated, setose, a little longer than the thorax. Thorax tufted on each side. Abdomen extending as far as the hind wings. Wings broad, rather long. Fore wings almost straight in front, somewhat rounded at the tips, very slightly convex and rather oblique along the exterior border; second inferior vein very much further from the third than from the first.

10. Diriphia varia.

Fœm. *Fusca; caput et pedes roseo varia; antennæ nigræ; abdomen supra luteum, fasciis nigris; alæ anticæ plaga discali albida, fasciis duabus obliquis albis nigro marginatis, fasciaque exteriore angulosa pallide fusca, venis apud fascias luteis; posticæ pallide fuscæ, fasciis duabus subobsoletis pallidioribus.*

Female. Brown. Head and legs partly rosy. Antennæ black. Abdomen above luteous, with black bands. Fore wings with a truncated whitish discal mark, and with two white black-bordered bands, which are interrupted by luteous streaks on the veins; first band extending from the base of the costa to some space beyond one-third of the length of the interior border; the other extending from beyond three-fourths of the length of the costa to rather beyond the middle of the interior border; an indistinct interrupted zigzag exterior pale brown band. Hind wings pale brown, with two exterior almost obsolete paler bands. Length of the body 16 lines; of the wings 46 lines.

a. Bolivia. From Mr. Bridges' collection.

11. Dirphia Eumenides.

Fusca; abdomen luteum, nigro fasciatum; alæ anticæ fasciis duabus canis strigisque exterioribus testaceis; posticæ obscuriores, fascia media testacea.

Phalæna-Bombyx Eumenides, *Cram. Pap. Exot.* iv. 219, pl. 395, f. B. C.

Phricodia Eumenide, *Hübn. Verz. Schmett.* 187, 1927.

Brown. Abdomen luteous, with black bands. Fore wings with a hoary short band extending from the base along part of the interior border, bordered with black exteriorly; a hoary black-bordered oblique band beyond the middle, and some testaceous streaks towards the exterior border. Hind wings rather darker than the fore wings, with a testaceous middle band.

Surinam.

Group 5.

Mas. Corpus sat robustum. Palpi caput non superantes. Antennæ latissime pectinatæ, thorace paullo longiores; rami graciles, ciliati, simplices. Alæ latæ, non longæ; anticæ apud costam subrectæ, apice vix acuminatæ, margine exteriore fere recto parum obliquo; posticæ abdomen perpaullo superantes.

Male. Body rather stout. Palpi extending as far as the head. Antennæ very deeply pectinated, a little longer than the thorax; branches slender, ciliated, not in pairs. Abdomen extending nearly as far as the hind wings. Wings broad, not long. Fore wings nearly straight in front, somewhat rounded at the tips, almost straight and very slightly oblique along the exterior border; second inferior vein much further from the third than from the first.

12. Dirphia obtusa.

Mas. *Cervina; caput, antennæ et thorax anticus fusca; abdomen supra luteum fasciis nigris; alæ fusco subnebulosæ et trifasciatæ.*

Male. Fawn-colour. Head, antennæ and thorax in front brown. Abdomen above luteous, with black bands. Wings slightly clouded with brown, and with narrow more distinct brown bands; exterior band undulating in the fore wings. Length of the body 14 lines; of the wings 36 lines.

a. Parà. Presented by Gordon Graham, Esq.

13. Dirphia rustica.

Mas. *Ferruginea ; alæ basi obscuriores, apud cilias nigricantes, fascia obliqua angusta subundulosa nigricante, fasciaque exteriore obscure ferruginea.*

Phalæna-Bombyx Attacus rustica, *Cram. Pap. Exot.* iv. 30, pl. 305, f. B.

Phricodia rustica, *Hübn. Verz. Schmett.* 187, 1924.

Male. Ferruginous. Wings a little darker towards the base, blackish along the ciliæ. Fore wings a little darker along the costa, with an oblique slender slightly undulating blackish band beyond the middle; a dark ferruginous band between the black band and the exterior border.

Surinam.

Group 6.

Fœm. Corpus robustum. Palpi caput non superantes. Antennæ subsetosæ, vix serratæ, thorace non longiores. Alæ longiusculæ, vix latæ; anticæ subacuminatæ, apud costam vix convexæ, margine exteriore recto sat obliquo; posticæ abdomen non superantes.

Female. Body stout. Palpi very short, not extending as far as the head. Antennæ minutely setose, hardly serrated, as long as the thorax. Abdomen extending as far as the hind wings. Wings rather long, hardly broad. Fore wings hardly convex in front, slightly acuminated at the tips; exterior border straight, rather oblique; second inferior vein full twice further from the third than from the first.

14. Dirphia nubila.

Fœm. *Fusca; abdomen fulvum; alæ anticæ fascia angusta obliqua bene determinata obscuriore, fasciisque duabus diffusis pallidioribus, una media plagam includente, altera exteriore; posticæ fascia arcuata subundulosa exteriore obscure fusca.*

Female. Brown. Abdomen tawny. Fore wings with a narrow straight oblique well-defined dark brown band, which extends from beyond five-sixths of the length of the costa to much beyond half the length of the interior border, and with two diffuse whitish brown bands, which are partly bordered with darker brown; one broad, discal, including a large brown spot; the other narrow, exterior, and undulating. Hind wings with a brown discal ringlet,

and with a darker brown curved slightly undulating exterior band. Length of the body 16 lines; of the wings 40 lines.

a. ——? From Mr. Children's collection.

Group 7.

Mas. Corpus sat validum. Palpi caput perpaullo superantes. Antennæ latissime pectinatæ; rami graciles, ciliati, non duplicati. Alæ latæ; anticæ apud costam subconvexæ, apice subrotundatæ, margine exteriore recto mediocriter obliquo; posticæ abdomen perpaullo superantes.

Male. Body moderately stout. Palpi extending very little beyond the head. Antennæ very deeply pectinated; branches simple, slender, ciliated. Abdomen extending nearly as far as the hind wings. Wings broad. Fore wings with the apical angle somewhat rounded, slightly convex in front, straight and moderately oblique along the exterior border; second inferior vein full twice further from the third than from the first.

15. Dirphia Agis.

Mas. *Pallide cervina; caput fulvescens; antennæ nigro-fuscæ; thorax fusco varius; abdomen supra luteum fasciis interruptis nigris; alæ anticæ fusco subnebulosæ, venis fuscis, fasciis duabus obliquis nigro-fuscis; posticæ fasciis duabus repandis fuscis.*

Phalæna-Bombyx Attacus Agis, *Cram. Pap. Exot.* i. 49, pl. 30, f. F.

Bombyx Agis, *Oliv. Enc. Méth. Ins.* v. 38, 53.

Dirphia Agis, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*) 153, 1598.

Surinam.

Male. Pale fawn-colour. Head somewhat tawny. Antennæ blackish brown. Thorax partly brown. Abdomen above luteous, with interrupted black bands. Legs brown. Fore wings slightly clouded with pale brown, which hue forms two oblique very irregular bands; two narrow blackish brown bands converging towards the interior border, their inner sides accompanied by a paler hue than that of the wing elsewhere; the first extending from the base of the costa to one-third of the length of the interior border; the other extending from three-fourths of the length of the costa to beyond half the length of the interior border; veins brown. Hind wings with

two broad and very diffuse brown bands. Length of the body 12—15 lines; of the wings 34—40 lines.

Var. β. Fore wings with the two blackish brown bands connected on the interior border. Hind wings with the brown bands less diffuse and more distinct.

a. Brazil. Presented by E. Doubleday, Esq.
b. Brazil. From M. Becker's collection.

Group 8.

Fœm. Corpus robustum. Palpi brevissimi. Antennæ serratæ, thorace paullo longiores. Thorax pilis longis erectis. Alæ longiusculæ, vix latæ; anticæ acuminatæ, apud costam subrectæ, margine exteriore recto mediocriter obliquo; posticæ abdomen non superantes.

Female. Body stout. Palpi very short, not extending as far as the head. Antennæ serrated, a little longer than the thorax. Thorax with long erect hairs. Abdomen extending as far as the hind wings. Wings rather long, hardly broad. Fore wings rectangular at the tips, almost straight along the costa; exterior border straight, moderately oblique; second inferior vein as far from the third as from the first.

16. Dirphia pulchricornis.

Fœm. *Ferrugineo-fusca; caput, pectus et pedes rosea; antennæ stramineæ; thorax fuscus, pilis longis testaceis; abdomen supra nigrum, apice fulvum; alæ fasciis duabus intus fuscescentibus extus purpureo-albidis; anticæ basi subalbidæ, litura discali lutea nigro conspersa albo marginata; posticæ basi fulvescentes.*

Female. Ferruginous-brown. Head, pectus and legs rosy. Antennæ pale lemon-colour. Thorax brown, with long testaceous hairs. Abdomen black above, tawny at the tip. Thorax with long testaceous upright hairs. Thorax with long testaceous upright hairs. Abdomen black above, tawny at the tip, with some whitish marks along each side. Wings with two brown bands, which are accompanied with pale purplish white along the exterior side; the latter hue is obsolete in the inner band of the hind wings. Fore wings somewhat whitish at the base, with a pale luteous discal mark,

which is flecked with black, and bordered with white. Hind wings slightly tawny towards the base. Length of the body 15 lines; of the wings 40 lines

a, *b*. Venezuela. From Mr. Dyson's collection.

Group 9.

Mas et fœm. Corpus sat validum. Thorax pilis longis erectis. Alæ latæ; anticæ subacuminatæ, apud costam vix convexæ, margine exteriore recto mediocriter obliquo. *Mas.*—Antennæ latissime pectinatæ; rami ciliati, inæqualiter duplicati. Alæ posticæ abdomen paullo superantes. *Fœm.*—Alæ posticæ abdomen vix superantes.

Male and female. Body moderately stout. Thorax with long erect hairs. Wings broad. Fore wings very slightly convex in front; apical angle somewhat rounded; exterior border straight and moderately oblique; second inferior vein much nearer to the first than to the third. *Male.*—Antennæ very deeply pectinated; each branch accompanied by a slender branch, which is much more than half the length of the other on the interior side, but much shorter on the exterior side. Abdomen extending to three-fourths of the breadth of the hind wings. *Female.*—Abdomen extending nearly as far as the hind wings.

17. DIRPHIA SEMIROSEA.

Mas et fœm. *Fusca, roseo varia; antennæ pallide testaceæ; thorax pilis longissimis albidis; abdomen roseum, fasciis nigris; alæ obscure roseæ, fusco fasciatæ; anticæ fasciis duabus interruptis albis.*

Male and female. Brown. Head and legs partly rosy. Antennæ pale testaceous. Thorax with very long erect whitish hairs. Abdomen rosy, with black bands. Wings dull pale rose-colour; veins dark brown; fringe luteous. Fore wings with two diffuse irregular and interrupted brown bands, and with two interrupted white bands. Hind wings with a slight cinereous tinge, which disappears towards the exterior border; near the latter there are two curved brown bands and a row of submarginal brown spots. Length of the body 10—13 lines; of the wings 28—34 lines.

a, *b*. ——— ? Presented by E. Doubleday, Esq.
c. Mexico. From M. Hartweg's collection.

18. Dirphia somniculosa.

Phalæna-Bombyx somniculosa, *Cram. Pap. Exot.* ii. 6, pl. 100, f. A, B.

Plateia somniculosa, *Hübn. Verz. Schmett.* 187, 1931.

Surinam.

The moth here described is much smaller than that in Cramer's figures, and in the latter the fore wings are white at the base, and the hind wings have but one lilac band.

Mas et fœm. *Rufescens; antennæ citrinæ; abdomen fasciis dorsalibus nigris; tarsi rosei; alæ viridi-cervinæ, anticæ fasciis quatuor, posticæ tribus pallide purpureis, anticæ striga perbrevi transversa discali albida nigro notata.*

Male. Reddish. Antennæ very pale lemon-colour. Abdomen with broad blackish bands, the intervals whitish. Tarsi rosy. Wings greenish fawn-colour. Fore wings with four oblique pale purple bands, and with a short transverse whitish streak, which is flecked with black. Hind wings a little paler than the fore wings, with three pale purple bands. Length of the body 9—12 lines; of the wings 30—40 lines.

a—*c*. Brazil. From M. Becker's collection.

19. Dirphia litura.

Mas. *Nigra; palpi apice testacei; antennæ testaceæ; thorax testaceo hirtus; tarsi testacei; alæ fuscæ, fasciis duabus obscurioribus, ciliis albis nigro maculatis; anticæ strigis duabus albis; posticæ basi albidæ, litura subtus discali nigra.*

Male. Black. Palpi with testaceous tips. Antennæ testaceous. Thorax with long erect testaceous hairs. Abdomen above with testaceous bands. Tarsi testaceous. Wings brown, with a slender undulating dark brown exterior band, which has a whitish border on its outer side; a diffuse and indistinct dark brown band across the middle of each wing; fringe white, with blackish spots. Fore wings with two short white streaks; the one longitudinal near the base; the other oblique, in the disk. Hind wings whitish and with testaceous hairs near the base; under side with a black streak on the veinlet of the discal areolet. Length of the body 16 lines; of the wings 42 lines.

Santa Fé de Bogotá. In Mr. Saunders' collection.

20. Dirphia Hircia.

Mas. *Fusca; abdomen luteum, nigro fasciatum; alæ gutta discali nigra, anticæ fusco rufescente testaceo glaucoque fasciatæ, posticæ ferrugineæ, fusco bifasciatæ.*

Phalæna-Bombyx Attacus Hircia, *Cram. Pap. Exot.* i. 49, pl. 30, f. G.

Phricodia Hircia, *Hübn. Verz. Schmett.* 187, 1925.

Male. Head and thorax brown. Abdomen luteous, with black bands. Wings with a black dot on each disk. Fore wings at the base pale brown, which colour is succeeded by a much paler hue; then follows a brown band dilated in front; then a pale reddish band enclosing the discal dot; next comes a testaceous brown-bordered band, and lastly a glaucous band along the exterior border. Hind wings ferruginous, paler, and with two brown bands towards the exterior border.

Surinam.

21. Dirphia Amalia.

Mas.. *Fusca; antennæ fulvæ; abdomen ochraceum, nigro fasciatum; alæ basi pallidiores, gutta discali nigra, margine exteriore cano, apice fuscæ, anticæ testaceo bifasciatæ, posticæ fascia obscure fusca.*

Phalæna-Bombyx Amalia, *Cram. Pap. Exot.* iv. 186, pl. 383, f. B.

Peripholia Amalia, *Hübn. Verz. Schmett.* 187, 1928.

Male. Brown. Antennæ tawny. Abdomen orange, with black bands. Wings paler towards the base, each with a black discal dot, and with a hoary exterior border; tips brown. Fore wings with two testaceous bands; hind wings with a brown band.

Surinam.

Group 10.

Corpus robustum. Palpi caput non superantes. Antennæ subsetosæ, vix serratæ, thorace non longiores. Alæ non latæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore recto sat obliquo; posticæ abdomen non superantes.

Female. Body stout. Palpi hardly extending as far as the head. Antennæ very minutely setose, hardly serrated, as long as the thorax. Abdomen extending as far as the hind wings. Wings

not broad, moderately long. Fore wings straight in front, slightly acuminated at the tips, straight and rather oblique along the exterior border; second inferior vein about twice further from the third than from the first.

22. Dirphia plana.

Fœm. *Fusco-cervina; antennæ testaceæ; abdominis dorsum nigrum, latera fulva; alæ anticæ fasciis duabus angustis obliquis fuscis albido ex parte marginatis, guttisque duabus discalibus albis; posticæ gutta transversa discali pallide testacea fasciaque exteriore angusta fusca.*

Female. Fawn-colour, slightly brownish above. Antennæ testaceous. Abdomen black above, tawny along each side. Fore wings with two narrow brown bands; the first near the base, undulating, with a slight whitish hue on each side; the other exterior, more oblique, with a whitish border on the inner side, extending from three-fourths of the length of the costa to three-fourths of the length of the interior border. Hind wings with a transverse oblong pale testaceous discal dot, and with a narrow exterior brown band. Length of the body 14 lines; of the wings 38 lines.

a. ——— ?. From Mr. Children's collection.

Group 11.

Mas. Corpus robustum. Palpi brevissimi. Antennæ mediocriter pectinatæ, thorace paullo longiores; rami subæquales, non duplicati. Alæ vix longæ, non latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subrecto perobliquo; posticæ abdomen non superantes.

Male. Body stout. Palpi very short, not extending as far as the head. Antennæ moderately pectinated, a little longer than the thorax; branches stout, simple, of nearly equal length. Abdomen extending as far as the hind wings. Wings hardly long nor broad. Fore wings straight in front, rounded at the tips, nearly straight and very oblique along the exterior border; second inferior vein about twice further from the third than from the first.

23. Dirphia angulifera.

Mas. *Pallide fusca; antennæ albidæ; abdomen supra luteo-fulvum; alæ anticæ macula costali basim versus fasciaque obliqua exteriore albidis necnon fascia brevi angulata discali alba; posticæ litura disculi transversa pallide testacea fasciaque exteriore fusca.*

Male. Pale brown. Antennæ whitish. Abdomen above luteous-tawny. Wings with a slight tawny tinge at the base. Fore wings with an oblique whitish mark on the costa near the base, with a large angular white spot in the disk, and with a slender oblique undulating exterior whitish band, which is dilated and white in front; under side with a brown exterior band. Hind wings with a transverse elongated pale testaceous dot, and with an exterior brown band, which is accompanied by a whitish band along the inner side beneath. Length of the body 10 lines; of the wings 30 lines.

a. Peru. From Mr. Children's collection.

Group 12.

Fœm. Corpus vix robustum. Palpi mediocres, caput fere superantes. Alæ anticæ vix latæ, apud costam subconvexæ, apice subacuminatæ, margine exteriore recto sat obliquo; posticæ abdomen paullo superantes.

Female. Body rather slender. Palpi stout, of moderate length, extending very little beyond the head. Antennæ wanting. Fore wings hardly broad, very slightly convex in front, slightly acuminated at the tips, straight and rather oblique along the exterior border; second inferior vein full four times further from the third than from the first. Hind wings extending a little beyond the abdomen.

24. Dirphia speciosa.

Fœm. *Caput et thorax luteo-fulva; abdomen supra nigricans, apice luteo-fulvum; alæ cervinæ; anticæ striga discali angulata alba nigro bivittata.*

Phalæna-Bombyx Attacus speciosa, *Cram. Pap. Exot.* ii. 16, pl. 107, f. B.

Bombyx speciosa, *Oliv. Enc. Méth. Ins.* v. 38, 52, pl. 71, f. 1.

Dirphia speciosa, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 153, 1597.

Surinam.

Female. Head, thorax and legs luteous-tawny. Abdomen blackish above, luteous-tawny at the tip and beneath. Wings fawn-colour; under side with a slight exterior brownish band, which is most distinct in the hind wings. Fore wings with a white obtusely angular discal streak, which is intersected by two black lines. Length of the body 10 lines; of the wings 32 lines.

a. Demerara. From Mr. Milne's collection.

Group 13.

Mas. Corpus mediocriter robustum. Palpi breviusculi, valde robusti. Antennæ latissime pectinatæ, thorace multo longiores. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor sat longis. Alæ latæ; anticæ subangulatæ, margine exteriore vix obliquo; posticæ abdomen vix superantes.

Male. Body moderately stout. Proboscis obsolete. Palpi rather short, very stout and pilose, extending a little beyond the head. Antennæ very deeply pectinated, considerably longer than the thorax. Abdomen extending nearly as far as the hind wings. Legs stout, pilose; hind tibiæ with four moderately long spurs. Wings broad. Fore wings convex towards the tip of the costa, nearly rectangular at the tips, hardly oblique along the exterior border; three inferior veins; second more than twice further from the third than from the first.

25. Dirphia multicolor.

Mas. *Fulva; palpi nigricantes; abdomen supra nigrum, fasciis luteis pilisque nonnullis albidis; tarsi rufi; alæ anticæ albido-testaceæ fasciis duabus diffusis undulosis subobliquis viridescentibus, vitta diffusa costali subpurpurea nigro guttata, subtus purpurascentes vitta costali fasciisque duabus fuscescentibus; posticæ roseæ viridi-fusco variæ.*

Male. Tawny. Palpi blackish. Antennæ pale tawny. Abdomen above black, with some whitish hairs; a slender luteous band on the hind border of each segment. Tarsi red. Fore wings whitish testaceous, with two diffuse undulating slightly oblique dull greenish bands; one at two-thirds of the length; the other submarginal; a diffuse irregular pale dull purplish stripe, with some black

dots along the costa from before one-fourth to beyond three-fourths of the length; a blackish mark at one-third of the length of the costa, another near the tip, and a third near the middle of the exterior border; a much larger irregular blackish mark, changing to greenish brown by the middle of the interior border, and extending thence to the middle, where it is accompanied by two small black marks; under side pale purplish, brownish in front, and with two oblique brownish bands beyond two-thirds of the length, the inner one darker and much more slender than the outer one, from which it is divided by a slender purple band; the outer brown band is accompanied towards the exterior border by an imperfect zigzag darker brown band. Hind wings rosy, greenish brown on more than one-third of the apical part, and with a greenish brown middle band, which contains a large black mark; fringe whitish, with brown spots; under side nearly as in the fore wings. Length of the body 16 lines; of the wings 42 lines.

Rio Janeiro. In the collections of Mr. Fry and of Mr. Saunders.

26. Dirphia rosacordis.

Mas. *Fusca; antennæ testaceæ; thorax postice roseus; abdomen supra nigrum rufo-albo fasciatum; tarsi rufi; alæ anticæ fasciis duabus subpurpureis unaque fusca guttisque duabus luteis, subtus fuscæ fasciis duabus subpurpureis maculaque discali nigra luteo marginata; posticæ subpurpureæ, basi roseæ. fasciis duabus maculisque exterioribus fuscis, subtus fasciis tribus fuscis maculaque discali nigra luteo cincta.*

Male. Structure of *D. multicolor*. Antennæ as long as the thorax. Fore wings slightly oblique along the exterior border. Brown. Antennæ testaceous. Hind part of the thorax rosy. Abdomen above black, with slender reddish-white bands. Tarsi red. Fore wings with three pale purple bands; the first at one-third of the length; the second at two-thirds and accompanied on its outer side by a darker brown band; the third marginal and diffuse and including a large brown spot; two luteous dots in a transverse line on the disk; under side brown, with three pale purple bands beyond the middle, and with a transverse luteous discal mark, whose disk is black. Hind wings purplish, rosy towards the base, and with two brown bands; a row of darker brown spots along the exterior border; under side pale purple, with three brown bands, with brown spots along the border, and with a transverse black luteous-bordered discal mark. Length of the body 13 lines; of the wings 36 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 14.

Mas. Corpus dense pilosum, sat robustum. Palpi breves, validi, pilosi. Antennæ late pectinatæ, thorace multo breviores. Pedes validi, pilosi, breviusculi. Alæ latæ; anticæ apud costam vix convexæ, apice vix angulatæ, margine exteriore mediocriter obliquo; posticæ abdomen superantes.

Male. Body densely pilose, moderately stout. Palpi stout, pilose, extending almost as far as the head; first and third joints very short. Antennæ deeply pectinated, much shorter than the thorax. Abdomen extending to a little beyond two-thirds of the breadth of the hind wings. Legs stout, pilose, rather short. Wings broad. Fore wings very slightly convex along the costa, hardly angular at the tips, moderately oblique along the exterior border; interior angle very obtuse, not well defined; three inferior veins; second further from the third than from the first. Hind wings with the interior very slightly obtuse, more distinct than that of the fore wings.

27. Dirphia satellitia.

Mas. *Pallide lutea; palpi extus nigricantes; antennæ fulvæ; abdomen testaceum; tibiæ tarsique nigricantia, ex parte albo pilosa; alæ fascia angusta perobliqua rufescente intus purpureo marginata, anticæ macula guttaque albis discalibus.*

Male. Pale luteous. Palpi blackish on the outer side. Antennæ tawny. Abdomen testaceous. Tibiæ and tarsi blackish partly clothed with white hairs. Wings with a slender very oblique reddish band, which extends from near the tip of the costa of the fore wings to one-fourth of the length of the interior border of the hind wings; it is bordered with pale purple on its inner side, and the fore wings have a pale purplish tinge towards their tips between the band on the costa, also a small white discal spot, which is accompanied in front by a white dot; under side of the wings with a few blackish flecks, and with two black spots placed transversely in the disk, also with a black spot near the tip of the costa. Length of the body 14 lines; of the wings 36 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 15.

Mas. Corpus robustum, dense pilosum. Palpi brevissimi. Antennæ late pectinatæ, thorace multo breviores. Abdomen breve, longi-obconicum. Pedes validi; tarsi dense pilosi. Alæ latiusculæ; anticæ apud costam subrectæ, apice vix angulatæ, margine exteriore mediocriter obliquo; posticæ abdomen longe superantes.

Male. Body stout, thickly pilose. Palpi very short, not extending near so far as the head. Antennæ deeply pectinated, much shorter than the thorax. Abdomen short, elongate-obconical, extending to a little beyond half the breadth of the hind wings. Legs stout; tarsi, like the other parts, thickly pilose. Wings rather broad. Fore wings straight along the costa till near the tips, where they are slightly convex, hardly angular at the tips, moderately oblique along the exterior border; interior angle rounded; three inferior veins; second much further from the third than from the first.

28. DIRPHIA PURPURASCENS.

Mas. *Lutea; antennæ flavæ; thoracis discus purpurascens; abdominis discus ater; alæ anticæ purpurascentes, macula transversa discali fusca, fasciis duabus viridescentibus unaque nigricante; posticæ purpureo-roseæ, fasciis duabus fuscescentibus.*

Male. Luteous. Antennæ yellow. Disk of the thorax purplish. Disk of the abdomen deep black. Fore wings purplish, with a blackish band at one-third of the length, with a transverse brown spot in the disk, with an oblique greenish band a little beyond the discal spot, and with a diffuse and indistinct paler green band nearer the exterior border. Hind wings pale purplish rosy, with two indistinct pale brownish bands; the first near and parallel to the exterior border, the second marginal. Length of the body 7 lines; of the wings 20 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 16.

Mas et fœm. Corpus robustum. Palpi breves, porrecti. Antennæ thorace non longiores. Abdomen alas posticas non superans, apice subfasciculatum. Pedes validi, pilosissimi. Alæ vix latæ; anticæ apud costam subrectæ, apice subacuminatæ, margine exteriore unduloso subobliquo. *Mas.*—Antennæ latissime pectinatæ. *Fœm.*—Antennæ mediocriter pectinatæ.

Male. Body stout. Palpi short, porrect, not extending as far as the head; second joint very little longer than the first; third very minute. Antennæ very deeply pectinated, not longer than the thorax. Abdomen not extending beyond the hind wings, slightly tufted at the tip. Legs stout, very pilose; hind tibiæ with two rather small apical spurs. Wings not broad. Fore wings straight along the costa nearly to the tips, which are slightly acute, undulating and slightly oblique along the interior border; three inferior veins; second much nearer to the first than to the third. *Female.*—Antennæ moderately pectinated.

29. Diaphia undulosa.

Mas. *Fulva, cano ex parte pilosa; caput vertice albido; palpi nigricantes, apice testacei; antennæ testaceæ; thorax antice ferrugineus; alæ anticæ cano fulvæ, fasciis duabus duplicatis arcuatis undulosis nigricantibus, guttis duabus anticis nigris maculisque tribus viridibus; posticæ fascia duplicata nigricante, vitta alba maculisque nigris apud maaginem interiorem.* Fœm.—*Ferruginea; palpi apice albidi; antennæ albidæ; alæ anticæ fasciis duabus fuscis, guttis duabus discalibus nigris lituraque apud costæ apicem furcata fusca; posticæ ochraceo-ferrugineæ.*

Male. Tawny, with many hoary hairs. Head with a whitish vertex. Palpi blackish, with pale testaceous tips. Antennæ testaceous. Thorax ferruginous in front. Fore wings with a slight hoary tinge; with two double curved undulating blackish bands, one before the middle, the other beyond the middle, the inner one accompanied on its outer side in front by two black dots; two pale green spots, one large, near the middle of the costa, the other smaller near the interior angle; a large dark green divided spot between the fore pale green one and the tip of the wing. Hind wings with one double blackish band corresponding to the outer one of the fore wings; a whitish stripe with black spots along the interior border; under side with a black forked partly white-bordered spot near the interior angle. Length of the body 5 lines; of the wings 13 lines. *Female.*—Ferruginous. Head with a whitish vertex. Palpi with whitish tips. Antennæ whitish. Fore wings with two double brown curved undulating bands corresponding to those of the male; two black discal dots; a large brown forked mark towards the tip of the costa. Hind wings orange-ferruginous, like those of the male

in other respects; the double band much more distinct beneath than above. Length of the body 6 lines; of the wings 19 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 17.

Fœm. Corpus vix robustum. Palpi brevissimi, caput non superantes. Antennæ simplices, subsetosæ, thorace non longiores. Abdomen alas posticas paullo superans. Alæ sat angustæ; anticæ apud costam subconvexæ, apice vix acuminatæ, margine exteriore recto perobliquo.

Female. Body hardly stout. Palpi very short, not extending as far as the head. Antennæ simple, minutely setose, not longer than the thorax. Abdomen extending a little beyond the hind wings. Wings rather narrow. Fore wings very slightly convex in front, hardly acuminated at the tips; exterior border straight and very oblique; second inferior vein rather further from the third than from the first.

The following species differs from all the other *Dirphiæ* by the abdomen, which extends beyond the hind wings, and in this respect it agrees with the genera *Mimallo* and *Eacles*, but is sufficiently distinct from them in other characters.

30. Dirphia vagans.

Fœm. *Fusca; antennæ testaceæ; abdomen nigro-fuscum fasciis testaceis, apice fulvum; tibiæ tarsique rosea; alæ fasciis nonnullis subobsoletis undulosis obscure fuscis, anticæ guttis duabus discalibus testaceis.*

Bombyx vagans, *MSS.*

Female. Brown. Antennæ testaceous. Abdomen above blackish brown, with testaceous bands, tawny at the tip. Tibiæ and tarsi rosy. Wings with slight indistinct undulating darker brown bands. Fore wings with two testaceous discal dots, one behind the other. Length of the body 10 lines; of the wings 26 lines.

a. Brazil. From M. Becker's collection.

31. Dirphia? Aconyta.

Fœm. *Ferruginea; abdomen alas posticas superans; alæ anticæ nigro conspersæ, fusciis quatuor obliquis strigisque exterioribus pallidis.*

Phalæna-Bombyx Aconyta, *Cram. Pap. Exot.* ii. 51, pl. 131, f. A.
Bombyx quadricincta, *Fabr. Mant. Ins.* ii. 111, 44; *Ent. Syst.* iii. 1, 422, 50.
Metanastria Aconyta, *Hübn. Verz. Schmett.* 186, 1917.

Female. Ferruginous. Abdomen extending for more than one-fourth of its length beyond the wings. Fore wings thickly sprinkled with black, adorned with four paler oblique bands; first and second bands very slender; third broad, its interior border undulating; fourth less distinct, the space beyond it with paler streaks.

Bengal, Coromandel.

Genus 32. EACLES.

Corpus crassum. Proboscis brevis, vix conspicua. Palpi brevissimi. Antennæ thorace breviores. Abdomen alas posticas nonnunquam superans. Pedes validi, longiusculi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longiusculæ, mediocriter latæ; anticæ acuminatæ, apud costam subconvexæ, margine exteriore perobliquo subrecto; posticæ abdomen nonnunquam superantes. *Mas.*—Antennæ late pectinatæ, apices versus serratæ, nonnunquam totæ mediocriter pectinatæ. *Fœm.*—Antennæ simplices.

Ceratocampa, *Harris, Append. Hitchcock's Geol. Massach.; Westw.*
Phalæna-Bombyx (Attacus), p., *Drury; Cram.; Gmel.*
Bombyx, p., *Fabr.; Pal. Beauv.; Oliv.*
Phalæna, p., *Abbot and Smith.*
Cerocampa, *Kirby and Spence.*
Eacles, p., et Citheronia, *Hübn. Verz. Schmett.* 153.

Body thick. Proboscis short, hardly visible. Palpi very short, not extending so far as the head. Antennæ a little shorter than the thorax. Abdomen occasionally extending beyond the hind wings. Legs stout, rather long; hind tibiæ with two very minute apical spurs. Wings rather long, moderately broad. Fore wings acuminated, very slightly convex in front; exterior border almost straight, very oblique; second inferior vein twice or more than four times further from the third than from the first. *Male.*—Antennæ deeply

pectinated, merely serrated for more than one-third of the length from the tips, moderately pectinated to the tips in some species. *Female.*—Antennæ simple.

North America.

A. Alæ flavæ rufo variæ. - - - - imperialis, *Drury.*
B. Alæ rufescentes flavo variæ. - - - - Laocoon, *Cram.*

1. EACLES IMPERIALIS.

Alæ flavæ, fusco irroratæ et variegatæ, quatuor infra maculæ discali subocellari fuscæ.

Ceratocampa imperialis, *Westw. Drury*, i. 17, pl. 9, f. 1, 2.
Phalæna (Attacus) imperialis, *Drury, Ins.* i. 17, pl. 9, f. 1, 2. *App.* v. 2. *Stoll, Suppl. Cram. Pap. Exot.* v. 178, pl. 42, f. 1.
Bombyx imperialis, *Fabr. Sp. Ins.* ii. 181, 62; *Mant. Ins.* ii. 116, 79; *Ent. Syst.* iii. 1, 435, 89. *Gmel. ed. Syst. Nat.* i. 5, 2417, 510.
Phalæna imperatoria, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* pl. 55. *Oliv. Enc. Méth.* v. 56, 116.
Bombyx Didyma, *Pal. Beauv. Ins. Lep.* pl. 20.
Eacles imperatoria, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 153, 1602.

New York.

Male and female. Yellow. Antennæ tawny. Thorax with two broad reddish partly interrupted stripes, which are connected by a band in the middle. Abdomen not extending beyond the hind wings, with almost confluent reddish bands. Wings with very numerous minute reddish dots, with two reddish bands, and with a reddish discal spot, whose disk is whitish; first band deeply angular; second very oblique. Fore wings with another spot like the discal one, to the front of which it is contiguous; second inferior vein about four times further from the third than from the first. *Male.*—Wings mostly reddish at the base. Fore wings reddish along the exterior border. Exterior band of the hind wings very near the discal spot. *Female.*—Exterior band of the hind wings touching the discal spot.

a, b. Georgia. From Mr. Milne's collection.

2. Eacles Laocoon.

Alæ fuscæ rufo lineatæ maculis flavis, posticæ subtus flavæ rufo lineatæ.

Phalæna-Bombyx Laocoon, *Cram. Pap. Exot.* ii. 80, pl. 117, f. A, B, C.

Bombyx Laocoon, *Oliv. Enc. Méth. Ins.* v. 37, 49, pl. 70, f. 8.

Citheronia Anassa, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 153, 1600.

Var. Mas. Phalæna Laocoon, *Stoll, Suppl. Cram. Pap. Exot.* v. 179, pl. 42, f. 2.

Phalæna regia, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* pl. 61.

Bombyx regalis, *Fabr. Ent. Syst.* iii. 1, 436, 93.

Citheronia regia, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 153, 1599.

Male and female. Head and fore part of the thorax reddish; a yellow spot at the base of each antenna. Thorax with three reddish stripes. Abdomen extending a little beyond the hind wings, fawn-colour; under side yellow, with four rows of reddish spots. Fore wings brown, with reddish stripes along the veins, with a yellow spot at the base, with another in the discal areolet, and with an oblique exterior band of yellow spots; second inferior vein about twice further from the third than from the first. Hind wings reddish, mostly yellow along the costa, and with a yellow spot by the interior border; under side yellow, tipped with brown, and with a reddish discal spot and a reddish exterior band.

Var. β. Male. Hind wings yellow, mostly reddish at the base, and with a reddish exterior band.

a, b. Georgia. From Mr. Milne's collection.

South America.

A. Alæ anticæ maculis nullis exterioribus vitreis.
  A. Alæ anticæ pallide rufo aut fusco variæ.
    a. Alæ posticæ fasciis non connexis.
      a. Alarum fasciæ albido non variæ. - magnificus, *Walk.*
      b. Alarum fasciæ albido variæ. - - ducalis, *MSS.*
    b. Alæ posticæ fasciis connexis. - - princeps, *Walk.*
  B. Alæ rufescentes flavo variæ.
    a. Thorax rufo vittatus. - - - - Phoronea, *Cram.*
    b. Thorax rufo non vittatus. - - cacicus, *Boisd. MSS.*
B. Alæ anticæ maculis exterioribus vitreis. - principalis, *MSS.*

3. EACLES MAGNIFICA.

Mas et fœm. *Flava; abdomen alas posticas non superans; alæ punctis plurimis maculaque discali rufescentibus, hujus discus albidus; anticæ macula discali, posticæ fascia exteriore rufescentibus.* Mas.—*Alæ anticæ triente basali fasciaque marginali rufescentibus, posticæ basi rufescentes; thorax vittis duabus connexis rufescentibus; abdomen fasciis connexis rufescentibus.* Fœm.—*Alæ fascia basim versus angulosa rufescente, anticæ fascia perobliqua exteriore rufescente; abdomen e maculis rufescentibus bivittatum.*

Male and female. Yellow. Abdomen not extending beyond the hind wings. Wings with numerous minute reddish dots, and with a reddish discal spot, which has an indistinctly whitish disk. Fore wings with another spot between the costa and the discal spot, and at some distance from the latter; second inferior vein more than four times further from the third than from the first. Hind wings with an exterior very oblique reddish band. *Male.*—Fore wings reddish for about one-third of the length from the base, and with a reddish band along the exterior border. Hind wings reddish at the base. Thorax with two broad reddish stripes, which are connected in the middle by a broad band. Abdomen with confluent reddish bands. *Female.*—Wings with a zigzag reddish band near the base. Fore wings with a very oblique reddish exterior band. Abdomen with two rows of reddish spots. Length of the body 18—20 lines; of the wings 50—60 lines.

Var. β. Male. Fore wings mostly reddish on nearly half the breadth from the interior border between the reddish basal part and the marginal band.

Var. γ. Fore wings with an exterior band like that of the female, the wings beyond this band partly red.

Var. δ. Fem. Exterior band and discal spot of the hind wings contiguous.

This species much resembles *E. imperialis*, but may be distinguished by the less angular basal band of the wings, and by some other characters.

a. Parà. Presented by Gordon Graham, Esq.
b. Brazil.

4. Eagles princeps.

Mas. *Flava; thoracæ macula antica vittisque duabus rufis; abdomen fasciis rufescentibus; alæ anticæ venis rufescentibus, fasciis duabus cinereo-fuscis strigisque nonnullis internediis rufescentibus, fascia 1a maculam flavam basalem includente, 2a marginali lineamque angulosam rufescentem includente; posticæ fasciis duabus connexis rufescentibus.*

Male. Yellow. Antennæ tawny. Thorax with a transverse reddish spot in front, and with two red dorsal stripes, which diverge hindward. Abdomen with reddish bands. Fore wings with two grayish brown bands, which are intersected by the reddish veins; first band adjoining the base, where it includes a yellow spot; second band marginal, including a slender zigzag red and yellow band; some slight reddish marks between the two bands. Hind wings with two red bands; the first broad and basal, connected with the second, which is curved. Length of the body 14—15 lines; of the wings 34—36 lines.

a, b. Brazil. From Mr. Argents' collection.

5. Eagles ducalis.

Mas et fœm. *Lutea; alæ punctis plurimis fuscescentibus, macula discali alba fusco marginata fasciisque duabus fuscis ex parte albo marginatis, fascia 1a angulosa, 2a recta perobliqua. Mas.—Alæ apud marginem exteriorem rufescentes; anticæ apud discum rufescentes, macula basali alba.*

Cerocampa ducalis, *MSS.*

Male and female. Luteous. Antennæ tawny. Wings with numerous very minute brownish dots, with a white brown-bordered discal spot, and with two brown partly white-bordered bands; first band near the base, zigzag; second exterior, straight, very oblique. Fore wings with the second inferior vein more than thrice further from the third than from the first. *Male.*—Wings mostly reddish along the exterior border. Fore wings mostly reddish in the disk, with a white spot at the base; white about the bands much more prevalent than in the female, and appearing more or less about the exterior border. Length of the body 17—19 lines; of the wings 44—60 lines.

a—c. Rio Janeiro. From Mr. Stevens' collection.

6. Eacles Phoronea.

Mas et fœm. *Ferrugineo-rufa; caput flavo bimaculatum; thoracis latera flava aut lutea; abdomen flavo maculatum, lateribus flavis rufo maculatis; alæ fascia angusta exteriore undulosa flavescente; anticæ macula basali flava, plaga discali diffusa interrupta, macula unica postica fasciaque exteriore obliqua e maculis luteis; posticæ basi et apud costam flavæ aut luteæ.*

Phalæna Attacus Phoronea, *Cram. Pap. Exot.* iii. 77, 78, pl. 239, f. A—C.

Citheronia Phoronea, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 151, 1601.

Male and female. Ferruginous-red. Head with a yellow spot on each side by the base of the antenna. Antennæ tawny. Thorax mostly yellow or luteous on each side. Abdomen with yellow bands; sides yellow, with a row of reddish spots. Wings with an undulating slender yellow band near the exterior border. Fore wings with a yellow spot at the base, with a large diffuse and interrupted luteous discal patch, with a luteous spot near the interior border, and with an exterior oblique band of luteous spots, of which the largest are by the costa; second inferior vein full twice further from the third than from the first. Hind wings mostly yellow or luteous at the base and along the adjoining part of the costa, and with the pale hue still more prevalent on the under side. Length of the body 20 lines; of the wings 46—64 lines.

a, *b*. Brazil. Presented by W. W. Saunders, Esq.

7. Eacles cacicus.

Fœm. *Luteo-flavia; abdomen fasciis dorsalibus maculisque lateralibus rufescentibus; alæ cinereo-fuscæ, venis fasciaque exteriore angusta angulosa rufescentibus; anticæ macula basali fasciaque lata antice repanda luteis, hac fasciam cinereo-fuscam interruptam includente; posticæ luteo subfasciatæ.*

Cerocampa cacicus, *Boisd.*, *MSS.*

Female. Luteous-yellow. Antennæ tawny. Abdomen extending a little beyond the hind wings, with broad reddish dorsal bands and with two lateral rows of reddish spots. Wings grayish

brown, with reddish veins and with a slender zigzag reddish band near the exterior border. Fore wings with a luteous spot at the base, and a broad luteous band, which is much dilated in front, and includes a grayish brown interrupted band; second inferior vein full six times further from the third than from the first. Hind wings with some traces of a band between two large luteous spots, one on the costa, the other on the interior border. Length of the body 18 lines; of the wings 52 lines.

Var. β. Fore wings with the brown band entire, and quite dividing the luteous one.

a. Rio Janeiro. Presented by Sir John Liddell.

8. Eacles principalis.

Mas et fœm. *Rufescens; caput flavo bimaculatum; thorax maculis duabus posticis flavis; alæ fasciis duabus obliquis fuscis ex parte albido marginatis, margine exteriore albicantes fasciamque late angulosam rufam includentes; anticæ apud costam albidæ, maculis tribus aut duabus vitreis apud fasciam exteriorem fuscam; posticæ basim versus et apud costam pallidiores maculaque transversa discali fuscescente.*

Cerocampa principalis, *MSS.*

Male and female. Reddish. Antennæ tawny. Head with a yellow spot at the base of each antenna. Thorax with two yellow dorsal spots on the hind part. Wings with two oblique brown bands, whose borders are partly whitish; the latter hue also appears along the exterior border; first band zigzag; second straight; a deeply angular pale red band near the exterior border. Fore wings with a whitish hue along the costa, and with three vitreous spots along the inner side of the exterior brown band; second inferior vein full four times further from the third than from the first. Hind wings paler towards the base and along the costa, and with a transverse brownish discal spot. Length of the body 15—18 lines; of the wings 48—56 lines.

Var. β. Fore wings with three much smaller vitreous spots.

Var. γ. Fore wings with only two small vitreous spots.

a—c. Brazil. From M. Becker's collection.
d. Brazil. Presented by W. W. Saunders, Esq.

Genus 33. CALOPTERA.

Statura parva. Proboscis valida, distincta. Palpi porrecti, longiusculi. Tibiæ posticæ calcaribus quatuor mediocriter longis. Tarsi antice elongati, postice breves. Alæ ciliis longis. *Mas.*—Antennæ subpectinatæ. *Fœm.*—Antennæ simplices.

Caloptera, *Friv. Suppl. Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 97.

Size small. Proboscis stout, distinct. Palpi porrect, somewhat elongated. Legs short; middle femora a little longer than the others; fore tibiæ more than half the length of the fore femora, with a tuft at their tips; fore tarsi thrice the length of the fore tibiæ; middle tibiæ a little shorter than the middle femora; hind tibiæ longer than the hind femora by one-fourth; hind tibiæ with four spurs of moderate length; middle tarsi as long as the middle tibiæ; hind tarsi short; ungues small. Wings with long ciliæ. *Male.*—Antennæ minutely pectinated. *Female.*—Antennæ simple.

This genus most probably belongs to some other family of Lepidoptera Heterocera.

1. Caloptera ocellata.

Sordide alba.

Caloptera ocellata, *Friv. Suppl.* 125, 126. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 97, 6, 1.

Dingy white.

Crete.

ADDENDA TO THE SATURNIIDÆ.

ANTHERÆA? CYPRIA.

Alæ subcinereæ, anticæ supra fascia mediâ ferruginea disco albido lineisque fuscis, subtus cervinæ ocello nigro pupilla alba strigaque transversa fusca; posticæ ocello discali croceo, pupilla alba, iride nigra.

Bombyx Cypria, *Mus. Lesk.* 96, 210.
Phalæna-Bombyx Attacus Cypria, *Gmel. ed. Syst. Nat.* i. v. 2403, 1307.
——?

——? MEGÆRA.

Alæ anticæ cæruleæ albo maculatæ, posticæ medio albæ apice cæruleæ flavo undatæ.

Bombyx Megæra, *Fabr. Mant. Ins.* ii. 109, 12; *Ent. Syst.* iii. 1, 412, 17.
Phalæna-Bombyx Attacus Megæra, *Gmel. ed. Syst. Nat.* i. 5, 2404, 467.

North America.

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15. ATTACUS BAUHINIÆ.

Bombyx (Saturnia) Bauhiniæ, *Boisd.; Guér. Icon. Règne Anim. Ins.* 506, pl. 86, f. 1.
Attacus Baumhiria, p. 1217.

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ANTHERÆA MYLITTA.

Bombyx (Saturnia) Mylitta, *Guérin, Rev. et Mag. de Zool.* 1855, 6, 297, pl. 6, f. 2.

Var.? *Alæ patulæ falcatæ, omnino testaceo-fulvæ, costa anticarum cinereo-fusca, omnibus ocello rotundato, vitreo, iride intus albo strigato, nigro cincto, pone medium striga transversa recta, fusco rosea extus albida ocello valde approximata.*

Bombyx (Saturnia) Pernyi, *Guérin, Rev. et Mag. de Zool.* 1855, 6, 297, pl. 6, f. 1.

China.

M. Guérin-Méneville observes that *A. Pernyi* may be distinguished from *A. Mylitta* by the form and texture of its cocoon. In his figures of the males *A. Pernyi* differs from *A. Mylitta* by its less falcate fore wings and by the exterior band, which is different in colour, more straight, and in the hind wings is contiguous to the ocellus. *A. Mylitta* varies much in the distance of the band of the hind wings from the ocellus, and the fore wings of the male are more or less falcate. Cocoon tawny-yellow, oval and rugose, like that of *Bombyx Mori*.

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ANTHERÆA PERROTTETII.

Mas. *Flava; thorax antice cinereus; alæ patentes, viride flavæ, strigis tribus lineaque marginali pallide rubris, duabus exterioribus dentatis; ocello rotundo fulvo, extus nigro marginato, intus linea arcuata alba, striga media transversali abbreviata flavida; alæ anticæ apice subfalcatæ, costa basi cinereæ.*

Ocellus wholly opaque. Very nearly allied to *A. Assama*.

Bombyx Perrottetii, *Guér. Mag. Zool.* 1843. *Ins.* pl. 123.

Pondicherry.

ANTHERÆA PETIVERI.

Bombyx Petiveri, *Guérin, Ann. Soc. Séricicole de France*, 1845, pl. 270.

——— ———, *Petiver, Gazoph.* pl. 29, f. 3.

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12. HYPERCHIRIA NYCTIMENE.

Bombyx Nyctimène, *Latr. Humb. et Bonpland, Rec. d'Observ. de Zool.* ii. 133, 158, pl. 43, f. 1, 2.

Hyperchiria Nyctimena, *p.* 1290.

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38. HYPERCHIRIA FALCIFERA.

Hyperchiria myops, p. 1311.
Bombyx falcifera, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* ii. *Veræ*, xi. *Eutrichæ*, B. *Simulatæ*, i. f. 1—4.

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8. RHESCYNTIS ORSINOME.

Titaca Orsinome, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* ii. *Sphing.* v. *Echidnæ*, E. *Speculares*, 2, f. 1, 2.
Rhescyntis latifascia, p. 1327.

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Genus MIMALLO.

Cicinnus, *Blanch.*, *Gay*, *Hist. Chile*, vii. 65.

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3. MIMALLO ORTHANE.

Cicinnus Orthane, *Blanch.*, *Gay*, *Hist. Chile*, vii. 66, 1. *Atlas*, *Zool. Ent. Lep.* pl. 6, f. 4.
Mimallo plana, p. 1338.

Conception.

Var. Mas. *Cervina; antennæ fulvæ; alæ fusco subvariæ, fascia angusta perobliqua fusca, extus albido-testaceæ, anticæ maculis tribus testaceis.*

Male. Fawn-colour. Head and thorax a little darker than the abdomen. Antennæ tawny. Wings thinly flecked with brown. Wings with a very oblique slender brown band, which extends from the middle of the interior border of the hind wings to near the tips of the fore wings; there it is abruptly retracted towards the base of the wing, and is shortly bent again and joins the costa; the space beyond it is whitish testaceous, with a brownish tinge along the exterior borders. Fore wings with three indistinct pale testaceous spots, one by the discal areolet, another near the base of the wing, and the third on the interior border. Length of the body 8 lines; of the wings 22 lines.

a. Brazil. From Mr. Argent's collection.

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32. DIRPHIA? CANITIA.

Cervina; alæ cinereæ, anticæ fasciis subglaucescentibus, macula discali fasciaque marginali nigro-cinereis.

Phalæna Attacus Canitia, *Cram. Pap. Exot.* iv. 28, pl. 304, f. D.
Hylesia Canitia, *Hübn. Verz. Schmett.* 186, 1922.

Surinam.

33. DIRPHIA PHADIMA.

Fœm. *Cervina; alæ anticæ basi, costa fasciisque duabus obliquis antice dilatatis fuscis.*

Phalæna-Bombyx Phadima, *Cram. Pap. Exot.* iv. 220, pl. 395, f. F.
Hylesia Phadima, *Hübn. Verz. Schmett.* 186, 1919.

Apparently allied to *D. vagans.*

Surinam.

34. DIRPHIA? METABUS.

Luteo-cervina; alæ ferrugineo-fuscæ, nigro venosæ.

Phalæna-Bombyx Metabus, *Cram. Pap. Exot.* i. 117, pl. 74, f. D.
Antarctis Metabus, *Hübn. Verz. Schmett.* 191, 1966.

Apparently allied to *D. vagans.*

Surinam.

35. DIRPHIA OBSOLETA.

Fœm. *Ferrugineo-cervina; abdomen cervinum; alæ anticæ fasciis tribus obliquis subobsoletis e strigis nigricantibus.*

Phalæna Attacus obsoleta, *Cram. Pap. Exot.* iv. 28, pl. 304, f. C.
Hylesia Boarmia, *Hübn. Verz. Schmett.* 186, 1920.

Allied to *D. Metabus.*

Surinam.

36. DIRPHIA? RIVULOSA.

Lutea; abdomen fasciis nigris; alæ concolores fuscæ, strigis plurimis undatis cinereis et pallidè fuscis.

Phalæna rivulosa, *Drury, Illust. Ins.* ii. pl. 14, f. 5. *Cram. Pap. Exot.* ii. 15, pl. 107, f. A.
Bombyx rivulosa, *Oliv. Enc. Méth. Ins.* v. 38, 54.

Group of *D. vagans?*

Surinam.

Genus CIRINA.

Fœm. Corpus crassum. Proboscis non conspicua. Palpi brevissimi. Antennæ serratæ, thorace non longiores. Pedes validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latæ, longiusculæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore recto perobliquo; posticæ abdomen paullo superantes.

Female. Body thick. Proboscis not visible. Palpi very short, not extending as far as the head. Antennæ serrated, not longer than the thorax. Abdomen extending to three-fourths of the breadth of the hind wings. Legs stout; hind tibiæ with two minute apical spurs. Wings broad, rather long. Fore wings slightly convex in front, rounded at the tips, straight and very oblique along the exterior border; second inferior vein very much further from the third than from the first.

This genus is very different from *Dirphia*, with which the characters in the Synopsis (p. 1199) associate it.

1. CIRINA SEMICÆCA.

Fœm. *Cervina; antennæ nigræ; alæ fascia obliqua subobsoleta cinerascente, posticæ gutta semihyalina discali fusco marginata.*

Perisomena semicæca, p. 1277.
Bombyx patens? *Boisd. Delagorgue, Voy. Afr. et Austral.* 509.

Var. Female. Fawn-colour. Antennæ black. Wings with a very indistinct oblique grayish band, which is somewhat more apparent on the under side, and extends from three-fourths of the length of the costa of the fore wings to two-thirds of the length of the interior border of the hind wings. Hind wings with a semihyaline brown bordered dot at the tip of the discal areolet. Length of the body 15 lines; of the wings 46 lines.

a. Port Natal. From M. Gueinzius' collection.

Genus PHANETA.

Mas. Corpus robustum. Proboscis non conspicua. Palpi brevissimi; articulus 3us minimus. Antennæ thorace paullo

breviores, late pectinatæ, dimidio fere apicali mediocriter pectinatæ. Abdomen alas posticas paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ angustæ; anticæ longiusculæ, apud costam subrectæ, apice subacuminatæ, margine exteriore perobliquo vix convexo.

Male. Body stout. Proboscis not visible. Palpi very short, not extending so far as the head; third joint very small. Antennæ a little shorter than the thorax, deeply pectinated for nearly two-thirds of the length, moderately pectinated from thence to the tips; branches ciliated, very numerous. Abdomen extending a little beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings narrow. Fore wings rather long, nearly straight in front, slightly acuminated at the tips, extremely oblique and very slightly convex along the exterior border; first and second inferior veins almost contiguous at the base; third very remote. Hind wings about half the length of the fore wings.

This genus seems to be more nearly allied to the *Saturniidæ* than to any other family. In the Synoptic table, p. 1200, it agrees with *Eacles*, but differs much from that genus in several characters.

1. PHANETA DIVISA.

Mas. *Cervina; thorax, pectus et pedes nigro varia; abdomen nigricans vitta testacea, subtus testaceum vitta nigricante; alæ basi nigro conspersæ, fascia interiore angusta perobliqua nigra extus albido diffuse marginata, lunula discali vitrea, fasciaque submarginali albida extus nigro marginata; anticæ apud costæ dimidium apicale nigricantes.*

Male. Fawn-colour. Thorax, pectus and legs with numerous black hairs. Tarsi testaceous. Abdomen blackish, with a testaceous dorsal stripe; under side testaceous, with a black stripe on each side. Wings towards the base thickly covered with black flecks, and with a few of the same elsewhere; a very oblique black band on the inner side of the vitreous lunule, this band in the fore wings is continued along the costa to the tip, it is accompanied on the outer side by a diffuse whitish band, and the latter at each end joins the submarginal whitish band, which is bordered with black on the outer side; ciliæ with two brown bands. Length of the body 7 lines; of the wings 18 lines.

a. Santarem, Brazil. From Mr. Bates' collection.

Fam. 9. ENDROMIDÆ.

Statura robusta. Proboscis non conspicua. Antennæ capitis latitudine multo longiores. Frenulum nullum. Alæ anticæ aliter venosæ, necnon majores ac posteriores, vena marginis interioris unica, 1a basim versus furcata; posticæ venis 4a et 5a basi approximatæ. *Mas.*—Antennæ pectinatæ. *Fœm.*—Alata. Antennæ subpectinatæ.

Endromides, *Boisd. Gen. Eur. Lep.* 74. *Herr.-Schæff.*
Endromites, *Blanch.*
Notodontidæ Endromidi, *Steph. Cat. Brit. Lep.* 44.
Endromidæ, *Duponch. Cat. Lep.* 79.

Genus 1. ENDROMIS.

Corpus crassum. Proboscis non conspicua. Palpi brevissimi. Antennæ thorace longiores. Abdomen alas posticas vix superans. Pedes sat graciles; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ mediocriter latæ; anticæ subacuminatæ, apud costam subrectæ, margine exteriore recto sat obliquo. *Mas.*—Antennæ mediocriter pectinatæ. *Fœm.*—Antennæ subpectinatæ.

Endromis, *Ochs. Schmett. von Eur.* iii. 15. *Steph. Ill. Brit. Ent. Haust.* ii. 33. *Herr.-Schæff.*
Phalæna-Bombyx, p., *Linn.; Gmel.*
Bombyx, p., *Fabr.; Oliv.; Schr.; Illig.; Hübn.; Panz.; Borkh.; Haw; God.; Sodoff.*
Sericaria, *Latr.*
Dorvillia, *Leach.*

This genus is very nearly allied to *Eacles*, and the *Endromidæ* should probably be reunited to the *Saturniidæ*.

Body thick. Proboscis not visible. Palpi very short, not extending so far as the head. Antennæ rather longer than the thorax. Abdomen extending about as far as the hind wings. Legs rather slender; femora thickly pilose; hind tibiæ with two very minute apical spurs. Wings moderately broad. Fore wings slightly acuminated, almost straight along the costa; exterior border straight, rather oblique; discal areolet intersected by two veinlets which are united towards the base; first and second inferior veins united at the base; third much further from the fourth than

from the second. *Male.*—Antennæ moderately pectinated; branches single, ciliated, very numerous. *Female.*—Antennæ slightly pectinated.

1. ENDROMIS VERSICOLORA.

Alæ cinereæ; anticæ strigis duabus lunulaque nigris albo lineatis, maculisque tribus ad apicem albis subvitreis; thorax antice albus.

Endromis versicolora, *Ochs. Schmett. von Eur.* iii. 16. *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Dimorphæ Hybridæ*), 143, 1526. *Steph. Ill. Brit. Ent. Haust.* ii. 34, 1. *Zett. Ins. Lapp.* 922, 1. *Freyer*, iii. 48, 82, pl. 224, f. 3. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 98, 1, 1.

Phalæna-Bombyx versicolor, *Linn. Syst. Nat.* ii. 817, 32; *Faun. Suec. ed.* 2, 294, 1111. *Gmel. ed. Syst. Nat.* i. 5, 2413, 32. *Bork. Syn.* i. 134. *Don. Nat. Hist. Brit. Ins.* v. 63, pl. 158. *Stew. El. Nat. Hist.* ii. 147. *Turt. Syst. Nat.* iii. 203. *Neale, Ent. Trans.* i. 323, pl. 9.

Phalæna versicolor, *Wilkes*, 44, pl. 89.

Bombyx versicolorus, *Haw. Lep. Brit.* 80.

Bombyx versicolora, *Fabr. Sp. Ins.* ii. 178, 50; *Mant. Ins.* ii. 113, 58; *Ent. Syst.* iii. 1, 427, 64. *Wien. Verz.* 49, 2. *Oliv. Enc. Méth.* v. 47, 88. *Fuessl. Schw. Ins.* 34, 650; *Alt. Mag.* i. 2, 213; ii. 1, 40, pl. 1, f. 4. *Hübn. Bomb.* 102, pl. 1, f. 1, 2; *Larv. Lep.* iii. *Bomb.* i. *Sphing.* A. f. 1, a, b. *Illig. N. Ausy. Dess.* i. 55, 2. *Esp. Schmett.* iii. 115, pl. 23, f. 1—5. *Sulz. Hist. Ins.* ii. 159, pl. 21, f. 4. *Naturf.* vi. 117, 3; viii. 102, 7; x. 94, 6; xiv. 66, pl. 3, f. 1—5. *Panz. Faun. Germ.* 21, 22. *Vieweg, Tab. Verz.* i. 38, 20. *Borkh. Eur. Schmett.* iii. 42, 5; *Rhein. Mag.* i. 327, 152. *Lang. Verz.* ii. 84, 648—651. *Brahm, Ins. Kal.* 183, 93; 526, 1385. *Schwarz, Raup.* 216, 376, 521. *God. Lép. de France*, iv. 149, pl. 14, f. 1, 2.

Bombyx versicolor, *Schr. Faun. Boic.* ii. 1, 245, 1416.

Phalæna versicoloria, *Hufnagel, Tab. Berl. Mag.* ii. 3, 400, 8.

——— ———, *Roës. Ins.* iii. 237, pl. 39, f. 3. *Wilk. Pap.* 45, pl. 1, a, i. *Pap. d'Eur.* iv. 55, pl. 125, f. 169; pl. 126, f. 169.

a—f. England. From Mr. Stephens' collection.
g, h. England.
i, j. France. From M. Becker's collection.
k. France.
l, m. Germany.

2. ENDROMIS RHODOPE.

Alæ albæ pellucidæ, strigis duabus undulatis parallelis submarginalibus, maculisque nonnullis discalibus anticarum virescentibus.

Phalæna (Bombyx) Rhodope, *Drury*, *App.* iii. *Ill. Ent. Ins* iii. 30, pl. 22, f. 3.
Endromis Rhodope, *Westw. ed. Drury*, iii. 31, pl. 22, f. 3.
Brazil.

Fam. 10. BOMBYCIDÆ.

Statura robusta. Proboscis sæpissime non conspicua. Antennæ capitis latitudine multo longiores. Frenulum nullum. Alæ anticæ aliter venosæ necnon majores ac posteriores, vena marginis interioris unica, 1a basim versus simplex; posticæ venis 4a et 5a basi approximatæ. *Mas.* — Antennæ late pectinatæ. *Fœm.* — Alata. Antennæ subpectinatæ aut simplices.

Bombycidæ, p., *Steph. Ill. Brit. Ent. Haust.* ii. 35. *Duponch. Cat. Lep.* 74.
Phalænina Bombycites, *Newman.*
Bombycini, p., *Boisd.*
Bombycites, *Blanch.*
Bombycidæ Bombycidi, *Steph. Cat. Brit. Lep.* 45.

Synopsis of Genera.

A. Limbus alarum denticulatus.
  A. Palpi longiusculi aut perlongi.
    a. Antennæ breviusculæ.
      a. Corpus crassum. - - 1. GASTROPACHA, *Ochs.*
      b. Corpus sat gracile. - - 2. EUGLYPHIS, *Hübn.*
    b. Antennæ longiusculæ.
      a. Palpi longiusculi. - - - 6. ODENESTIS, *Germar.*
      b. Palpi longissimi.
        i. Alæ anticæ rotundatæ. - - 9. OPSIRHINA, *Walk.*
        ii. Alæ anticæ acuminatæ. - - 8. OEONA, *Walk.*
  B. Palpi breviusculi.
    a. Alæ posticæ non obtusæ.
      a. Antennæ *maris* æqualiter pectinatæ.

i. Abdomen alas posticas plus minusve superans.
5. Eutricha, *Hübn.*
ii. Abdomen alas posticas vix superans.
7. Amydona, *Walk.*
b. Antennæ *maris* inæqualiter pectinatæ.
11. Pachypasa, *Walk.*
B. Alæ posticæ apice obtusæ.
a. Abdomen *maris* apice fasciculatum, *fœminæ* lanuginosum.
4. Cœculia, *Boisd.*
b. Abdomen *fœminæ* apice non lanuginosum.
3. Hydrias, *Boisd.*
B. Limbus alarum non denticulatus.
A. Alæ anticæ non hamatæ.
A. Tibiæ posticæ calcaribus duobus apicalibus parvis.
a. Alæ dense squamosæ.
i. Caput non productum.
* Antennæ *maris* æqualiter pectinatæ.
† Abdomen apice non dense pilosum.
‡ Alæ anticæ venis non punctatis.
§ Alæ non elongatæ.
× Abdomen *fœminæ* apice non lanuginosum.
+ Alæ cervinæ, testaceæ, aut ferrugineæ.
0 Alæ anticæ sæpissime macula discali pallida. 13. Lasiocampa, *Steph.*
00 Alæ anticæ macula nulla discali pallida.
— Alæ anticæ apice subacuminatæ.
27. Clisiocampa, *Curt.*
= Alæ anticæ apice rotundatæ.
30. Ocha, *Walk.*
++ Alæ albidæ, cinereo et fusco variæ.
0 Antennæ *maris* late pectinatæ.
28. Tacillia, *Walk.*
00 Antennæ *maris* mediocriter pectinatæ.
15. Catocephala, *Blanch.*
+++ Alæ anticæ argenteæ. 12. Titya, *Walk.*
×× Abdomen *fœminæ* apice sublanuginosum.
+ Antennæ *maris* corporis dimidio non longiores. 23. Trichiura, *Steph.*
++ Antennæ *maris* corporis dimidio longiores.
0 Abdomen *fœminæ* non elongatum.
— Alæ anticæ non signatæ.
24. Laòra, *Walk.*
= Alæ anticæ albo signatæ.
25. Callia, *Walk.*

00 Abdomen *fœminæ* elongatum.
26. Omphalia, *Boisd.*
§§ Alæ elongatæ. - - 37. Netria, *Walk.*
‡‡ Alæ anticæ venis punctatis. 29. Artace, *Walk.*
†† Abdomen apice dense pilosum. 19. Tolype, *Hübn.*
** Antennæ *maris* inæqualiter pectinatæ.
† Alæ anticæ margine exteriore non excavato.
‡ Thorax lineatus. - 33. Adelocephala, *Boisd.*
‡ Thorax non lineatus.
§ Palpi brevissimi. - 32. Dryocampa, *Harris.*
§§ Palpi mediocriter longi. 34. Phædria, *Walk.*
†† Alæ anticæ *maris* margine antico excavato.
36. Syssisphinx, *Hübn.*
ii. Caput subproductum.
* Palpi non acuminati.
† Antennæ *maris* late pectinatæ.
‡ Antennæ *maris* æqualiter aut subæqualiter pectinatæ. - - - 17. Lebeda, *Walk.*
‡‡ Antennæ *maris* inæqualiter pectinatæ.
16. Megasoma, *Boisd.*
†† Antennæ *maris* subpectinatæ.
18. Borocera, *Boisd.*
** Palpi acuminati. - - - 35. Suana, *Walk.*
b. Alæ parce squamosæ.
i. Abdomen *fœminæ* apice dense lanuginosum.
* Antennæ *fœminæ* pectinatæ.
20. Eriogaster, *Germar.*
** Antennæ *fœminæ* simplices. - 22. Gasina, *Walk.*
ii. Abdomen *fœminæ* apice non dense lanuginosum.
* Antennæ *maris* corporis dimidio longiores.
21. Pœcilocampa, *Steph.*
** Antennæ *maris* corporis dimidio non longiores.
14. Malacosoma, *Hübn.*
B. Tibiæ posticæ calcaribus longis. - 31. Phyllalia, *Walk.*
B. Alæ anticæ apice subhamatæ. - - 38. Bombyx, *Linn.*
C. Alæ anticæ apud marginem exteriorem hamatæ.
10. Polymona, *Walk.*

Genus 1. GASTROPACHA.

Corpus crassum. Caput subproductum. Proboscis non conspicua. Palpi validi, porrecti, pilosi, caput sat superantes; articulus 3us 2i dimidio brevior, apice rotundatus. Antennæ arcuatæ,

thorace paullo breviores. Abdomen alas posticas sæpissime plus minusve superans. Pedes validi, pilosissimi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ mediocriter latæ, margine exteriore denticulato; anticæ apud costam subrectæ, apice subacuminatæ, margine exteriore mediocriter obliquo. *Mas.*—Antennæ at late pectinatæ. *Fœm.*—Antennæ mediocriter pectinatæ.

Gastropacha, *Curt. Brit. Ent.* i. 24; *Steph. Ill. Brit. Ent. Haust.* ii. 52.
Phalæna-Bombyx, p., *Linn.*; *Gmel.*; *Don.*; *Stew.*; *Turt.*
Phalæna, p., *List.*; *Berk.*; *Wilkes*; *Harr.*
Bombyx, p., *Fabr.*; *Oliv.*; *Schr.*; *Wien. Verz.*; *Esp.*; *Borkh.*; *Hübn.*; *Haw.*, &c.
Lasiocampa, p., *Schr.*
Gastropacha, p., *Ochs. Herr.-Schæff.*

Body thick. Head prominent. Proboscis obsolete. Palpi stout, porrect, pilose, extending some distance beyond the head; third joint less than half the length of the second, rounded at the tip. Antennæ curved, a little shorter than the thorax. Abdomen generally extending more or less beyond the hind wings. Legs stout, very pilose; hind tibiæ with two very minute apical spurs. Wings moderately broad, denticulated along the exterior border. Fore wings nearly straight in front, slightly acuminated at the tips, moderately oblique along the exterior border; first and second inferior veins almost contiguous at the base; third rather remote from the second, more remote from the fourth. *Male.*—Antennæ rather deeply pectinated. *Female.*—Antennæ moderately pectinated.

Europe.

A. Alæ omnes æqualiter coloratæ et signatæ.
A. Alarum ciliæ albæ, in venis fuscæ.
a. Fusca, cinereo variegata. - - - - Ilicifolia, *Linn.*
b. Pallide lateritia. - - - - - Betulifolia, *Fabr.*
c. Pallida, ciliis rubris, inter venas albis; alæ anticæ strigis 2 aut 3, posticæ unica tenuibus obscurioribus. suberifolia, *Ramb.*

B. Alarum ciliæ concolores.
A. Lateritia; limbus alarum undulatus. Populifolia, *Wien. Verz.*
B. Cupreo badius; limbus alarum profunde dentatus. Quercifolia, *Linn.*

1. GASTROPACHA QUERCIFOLIA.

Alæ ferrugineæ; anticæ strigis undatis fuscis, margineque postico nigris.

Gastropacha quercifolia, *Ochs. Schmett. von Eur.* iii. 247, 4. *Curt. Brit. Ent.* i. pl. 24. *Steph. Ill. Brit. Ent. Haust.* ii. 52, 1. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 104, 44.

Phalæna-Bombyx quercifolia, *Linn. Syst. Nat.* ii. 812, 18; *Faun. Suec.* 293, 1110. *Gmel. ed. Syst. Nat.* i. 5, 2408, 18. *Don. Nat. Hist. Brit. Ins.* vii. pl. 332. *Stew. El. Nat. Hist.* ii. 144. *Turt. Syst. Nat.* iii. 199.

Phalæna Quercifolia, *Scop. Ent. Carn.* 193, 485. *Berk. Syn.* i. 133. *Wilkes*, 27, pl. 57. *Harr. Aur.* pl. 43, f. a—c.

Bombyx Quercifolia, *Fabr. Syst. Ent.* 561, 19. *Sp. Ins.* ii. 173 32; *Mant. Ins.* ii. 111, 37; *Ent. Syst.* iii. 1, 420, 42. *Wien. Verz.* 56. *Oliv. Enc. Méth.* 39, 57. *Illig. N. Ausg. Dess.* i. 103, 1. *Hübn. Bomb.* 147, 4, pl. 43, f. 187, 188; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, S, a, b, f. 1, a—d. *Schæff. Icon. Nom. Panz.* 87. *Esp. Schmett.* iii. 56, pl. 6, f. 1—7; 394, pl. 79, f. 3. *Borkh. Eur. Schmett.* iii. 63, 15; *Rhein. Mag.* i. 357, 209. *Müll. Faun. Fridr.* 39, 354; *Zool. Dan.* 117, 1349. *Fuessl. Schweiz. Ins.* 33, 636; *Alt. Mag.* i. 2, 269; *N. Mag.* ii. 59, 18, *Hüfn. Tab. in Berl. Mag.* ii. 4, 394, 2, 428. *Virweg, Tab. Verz.* i. 30, 3. *Rossi, Faun. Etr.* 168, 1073; *Ed. Illig.* 270. 1073. *Lang. Verz.* ii. 100, 761. *Brahm, Ins. Kal.* 83, 35., *Schwarz, Raup.* iii. 69, 210, 639, 753.

Bombyx Quercifolium, *Schr. Faun. Boic.* ii. 1, 270, 1453.

Lasiocampa Quercifolia, *Schr. Faun. Boic.* ii. 2, 154, 1.

Bombyx Quercifolius, *Haw. Lep. Brit.* 95.

Phyllodesma Quercifolia, *Hübn. Verz. Schmett.* 190, 1951.

——— ———, *Albin, Ins.* i. pl. 16. *Rai, Ins.* 141, 1; 342, 2. *Réaum. Ins.* ii. pl. 23. *Frisch, Ins.* iii. 3, pl. 1, f. 1—6. *Merian, Ins. Eur.* pl. 1, f. 3. *Roës. Ins.* i. 2, 233, pl. 41. *Geoffr. Ins. Par.* ii. 110, 11. *Wilk. Pap.* 27, pl. 3, f. 1. *Sulz. Ins.* pl. 16, f. 93. *Poda, Ins.* 84, 3, pl. 2, f. 7. *Schæff. Icon. pl.* 71, f. 4, 5. *Pap. d'Eur.* iv. 199, pl. 166, f. 217; *Suppl.* pl. 5, f. 217.

a. England. Presented by H. Doubleday, Esq.
b—j. England. From Mr. Stephens' collection.
k, l. England. From Mr. Foxcroft's collection.
m, n. England.
o, p. Europe. From M. Becker's collection.
q. Europe. From Mr. Children's collection.
r—t. Europe.
v. Germany.

2. Gastropacha Populifolia.

Alæ anticæ luteo-testaceæ, lunulis numerosis fuscis.

Gastropacha Populifolia, *Ochs. Schmett. von Eur.* iii. 45, 3. *Steph. Ill. Brit. Ent. Haust.* ii. 53. 3. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 103, 4, 4.

Phyllodesma Populifolia, *Hübn. Verz. Schmett.* 190, 1952.

Bombyx Populifolia, *Wien. Verz.* 310, 5. *Fabr. Mant. Ins.* ii. 110, 36; *Ent. Syst.* iii. 1, 420, 41. *Oliv. Enc. Méth.* v. 39, 58. *Hübn. Bomb.* 147, 3, pl. 43, f. 189; pl. 59, f. 254. *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, S, a, b, f. 1, a, b. *Illig. N. Ausg. Dess.* i. 104, 1, 2. *Esp. Schmett.* iii. 62, pl. 6, f. 3, 4; pl. 7, f. 1; 50, pl. 88. *Cont.* 9, f. 3, 4. *Schwarz, Beytr.* 91, pl. 14, f. 1—4. *Borkh, Eur. Schmett.* iii. 67, 16; *Rhein. Mag.* i. 357, 210. *Vieweg, Tab. Verz.* i. 31, 4; *Lang. Verz.* ii. 100, 765, 766. *Brahm, Ins. Kal.* 335, 221. *Schwarz, Raup.* 91, 234.

Phalæna-Bombyx Populifolia, *Gmel. ed. Syst. Nat.* i. 5, 2408, 485.

——— ———, *Pap. d'Eur.* iv. 203, pl. 167, f. 218. a—g.; pl. 5. *Suppl.* f. 218.

a. Europe. From M. Becker's collection.

3. Gastropacha suberifolia.

Pallida; ciliæ rubræ, inter venas albæ; alæ anticæ strigis duabus aut tribus, posticæ unica tenuibus obscurioribus.

Gastropacha suberifolia, *Ramb. Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 103, 3, 3.

Lasiocampa suberifolia, *Duponch. Suppl. Bomb.* 79, pl. 77, f. 3.

South Europe.

4. Gastropacha Ilicifolia.

Alæ anticæ cinereæ, rufo nebulosæ, fascia maculari albida.

Gastropacha ilicifolia, *Ochs. Schmett. von Eur.* iii. 240, 1. *Steph. Ill. Brit. Ent. Haust.* ii. 53, 2. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii.; *Text*, 103, 1, 1.

Phalæna-Bombyx Ilicifolia, *Linn. Syst. Nat.* ii. 8, 13, 19; *Faun. Suec.* 293, 1109. *Gmel. ed. Syst. Nat.* i. 5, 2408, 79. *Turt. Syst. Nat.* iii. 199.

Bombyx Ilicifolia, *Illig. Mag.* ii. 51. *Fam.* O. 3. *Hübn. Bomb.* 148, 5, pl. 44, f. 190; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, S. b, c, f. 1, a.

——— ———, *Deg. Ins.* i. 2, 17, pl. 14, f. 1—12; ii. 1, 212, 1. *Pap. d'Eur.* iv. 204, pl. 168, f. 219; *Suppl.* pl. 6, f. 219.

Phalæna Ilicifolia, *Fuessl. Schweiz. Ins.* 33, 637.

Bombyx Betulifolia, *Esp. Schmett.* iii. 63, pl. 7, f. 2—6. *Borkh. Eur. Schm.* iii. 69, 17; *Rhein. Mag.* i. 359, 210. *Lang. Verz.* ii. 99, 759. *Schwarz. Raup.* 232, 750.

Phyllodesma Ilicifolia, *Hübn. Verz. Schmett.* 190, 1953.

Lasiocampa Betulifolia, *Duponch. Suppl. God. Lép. France*, iv. pl. 16, f. 1.

a, *b*. Europe. From Mr. Children's collection.

c. Europe.

5. Gastropacha Betulifolia.

Alæ ferrugineæ, anticæ strigis interruptis fuscis margineque exteriore cinereo, posticæ striga transversa fusca.

Gastropacha Betulifolia, *Ochs. Schm. von Eur.* iii. 242, 2. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii.; *Text*, 103, 2, 2. *Freyer, Neue Lep. Beitr.* i. 29, 23, pl. 15.

Bombyx Ilicifolia, *Fabr. Sp. Ins.* ii. 174, 33; *Mant. Ins.* ii. 111, 38; *Ent. Syst.* iii. 1, 421, 43. *Wien. Verz.* 56, 1, 2. *Oliv. Enc. Méth.* v. 40, 59. *Illig. N. Ausg. Dess.* i. 105, 2; *Mag.* ii. 51, 2. *Naturf.* xv. 57, pl. 3, f. 5, 14. *Esp. Schm.* iii. 64, pl. 8, f. 1—5. *Borkh. Eur. Schm.* iii. 72, 18; *Rhein. Mag.* i. 360, 212. *Vieweg, Tab. Verz.* i. 31, 5. *Lang. Verz.* ii. 99, 756. *Brahm, Ins. Kal.* 148, 76, 554. *Schwarz, Raup.* 17, 69, 210, 371, 640, 759.

Bombyx Ilicifolium, *Schr. Faun. Boic.* ii. 1, 271, 1454.

Lasiocampa Ilicifolia, *Schr. Faun. Boic.* ii. 2, 154.

Bombyx Tremulifolia, *Hübn. Bomb.* 148, 6, pl. 44, f. 191, 192; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, S. b, c. f. 2, a.

——— ———, *Pap. d'Eur.* iv. 266, pl. 168, f. 220.

Phyllodesma Tremulifolia, *Hübn. Verz. Schmett.* 190, 1954.

a, *b*. Europe. From M. Becker's collection.

c. Europe.

North America.

6. Gastropacha occidentis.

Ferruginea; alæ ciliis albo notatis, anticæ fasciis obliquis nigricantibus, basi testaceæ, apud marginem exteriorem cinereæ; posticæ disco ex parte testaceo.

Phalæna ilicifolia, *Smith and Abbot, Nat. Hist. Lep. Ins. Georgia*, ii. 101, pl. 51.

This species may be easily distinguished from *G. Ilicifolia* by its much brighter colour, and by the white marks along the fringe between the veins.

a, *b*. North America. From Mr. Milne's collection.

South America.

7. GASTROPACHA PHIDONIA.

Mas. *Fusca; alæ albidæ, fusco conspersæ; anticæ fasciis duabus angustis angulosis fuscis; posticæ fasciis duabus subrectis fuscis.*

Phalæna-Bombyx Phidonia, *Cram. Pap. Exot.* iv. 229, pl. 379, f. n.
Bombyx Phidonia, *Oliv. Enc. Méth.* v. 45, 84.
Phyllodesma Phidonia, *Hübn. Verz. Schmett.* 190, 1950.

Surinam.

Asia.

A. Alæ anticæ macula trigona. - - - Bremeri, *Kolenati*.
B. Alæ anticæ macula nulla trigona.
A. Alæ anticæ gutta albida. - - - - Vishnou, *Lefeb*.
B. Alæ anticæ gutta nulla albida.
a. Alæ sulphureæ. - - - - sulphurea, *Kollar*.
b. Alæ cervinæ.
a. Thoracis latera fusca. - - - undulifera, *Walk*.
b. Thoracis latera non fusca. - angustipennis, *Walk*.
c. Alæ subcinereæ. - - - - Caschmirensis, *Kollar*.
d. Alæ fuscæ. - - - - - velutina, *Kollar*.
e. Alæ nigro-fuscæ. - - - - - Promula, *Cram*.

8. GASTROPACHA BREMERI.

Mas. *Alæ luteæ, livido fasciatæ, margine a fascia toto maculaque in anticis triangulari ochraceis.*

Gastropacha Bremeri, *Kolenati, Mel. Ent.* 98, pl. 18, f. 2. *Zeller, Ent. Zeit. Stett.* ix. 373.

Elisabeththal.

9. GASTROPACHA? CASCHMIRENSIS.

Albo-subcinerea; alæ basi pilis mollissimis longioribus; anticæ puncto medio, subsequente stria fasciaque latiore marginali subfuscis, interjacentibus striis undulatis dilutioribus; posticæ alternatim dilute fusco subcinereoque undatæ.

Gastropacha? Caschmirensis, *Kollar, Kaschmir, von Von Hugel*, 472, 2, pl. 21, f. 4.

Caschmir.

10. Gastropacha sulphurea.

Sulphurea; antennæ pectinatæ rufescentes; alæ dentatæ, anticæ macula ad marginem posticum magna fusco-ferruginea, adjacente minore subreniformi striisque duabus abbreviatis obscurioribus; posticæ stria media fuscescente.

Gastropacha sulphurea, *Kollar, Kaschmir, von Von Hugel*, 471, 1.

Himalaya Mountains.

11. Gastropacha velutina.

Alæ anticæ fusco velutinæ, sericeo nitentes, atomis subcinereis, fascia media ejusdem coloris impressa; posticæ dilute fuscæ velutinæ.

Gastropacha velutina, *Kollar, Kaschmir, von Von Hugel*, 473, 3.

Himalaya Mountains.

12. Gastropacha Vishnou.

Alæ dentatæ fœminæ utrinque luteo-flavæ; anticæ ad basim cinereo maculatæ, puncto solitari albido, nigro cincto, ab margine exteriori ad angulum externum, punctis fuscis; posticæ, linea, serieque punctorum fuscorum transversis; fimbria violacea.

Gastropacha Vishnou, *Lefebvre, Zool. Journ.* iii. 207.

Length of the wings 30 lines.

Madras.

13. Gastropacha angustipennis.

Fœm. *Pallide cervina; palpi et antennæ nigricantia, subtus fulvescentia; alæ apices versus obscuriores, fasciis plurimis fuscescentibus interruptis non bene determinatis.*

Female. Pale fawn-colour. Palpi and antennæ blackish above, tawny beneath. Abdomen paler than the thorax. Wings with several slight oblique interrupted undulating brownish bands, darker towards the exterior border. Length of the body 14 lines; of the wings 28 lines.

a. North China. From Mr. Cuming's collection.

14. GASTROPACHA UNDULIFERA.

Fœm. *Cervina; antennæ nigricantes; thoracis latera antica fusca; pedes fusco varii; alæ fasciis nonnullis angustis undulosis subobsoletis fuscescentibus.*

Female. Dull pale fawn-colour. Antennæ blackish, tawny beneath. Sides of the thorax brown in front. Legs partly clothed with brown hairs. Wings with some slender indistinct undulating brownish bands. Length of the body 9 lines; of the wings 24 lines.

a. North India. From Mr. Stevens' collection.

15. GASTROPACHA PROMULA.

Mas. *Nigro-fusca; abdomen cervinum; alæ posticæ vitta lata brevi postica basali pallide fusca.*

Phalæna-Bombyx Promula, *Cram. Pap. Exot.* i. 114, pl. 72, f. D. Bombyx Promula, *Oliv. Enc. Méth.* v. 40, 60.

Batavia.

Australia.

16. GASTROPACHA RUFESCENS.

Fœm. *Rufescente-cinerea; antennæ fuscæ, subtus pallide fulvæ; abdomen rufescens; alæ cilia inter venas alba, anticæ apud marginem exteriorem cinereæ, posticæ magis rufescentes.*

Female. Reddish cinereous. Antennæ brown, pale tawny beneath. Abdomen reddish. Fringe of the wings white between the veins. Fore wings cinereous towards the exterior border. Hind wings more reddish, paler towards the base. Length of the body 10 lines; of the wings 22 lines.

a. Van Dieman's Land. Presented by R. Butler, Esq.

Country unknown.

17. GASTROPACHA ALBIPECTUS.

Mas. *Cervina, subtus ferruginea; palpi ferruginei; antennæ albidæ, ramis ferrugineis; pectus tarsique albida; alæ anticæ fasciis duabus angustis obliquis albidis; posticæ ferrugineæ.*

Male. Fawn-colour, ferruginous beneath. Palpi ferruginous. Antennæ whitish, with ferruginous branches. Pectus and tarsi whitish. Fore wings with two slender oblique whitish bands. Hind wings ferruginous. Length of the body 8 lines; of the wings 16 lines.

a. ——? From Mr. Children's collection.

18. Gastropacha? Cassandra.

Media; caput testaceum; antennæ pallidæ; thorax obscure fuscus, postice cinereus; abdomen cinereum, immaculatum; alæ anticæ dentatæ, ferrugineæ, strigis tribus distinctis aliquotque obsoletioribus obscuris, subtus pallidiores immaculatæ; posticæ cinereæ.

Bombyx Cassandra, *Fabr. Mant. Ins.* ii. 111, 40; *Ent. Syst.* iii. 1, 421, 45. *Oliv. Enc. Méth.* v. 40, 61.
Phalæna-Bombyx Cassandra, *Gmel. ed. Syst. Nat.* i. 5, 2408, 487.

Genus 2. EUGLYPHIS.

Mas. Corpus vix crassum. Antennæ mediocriter pectinatæ, thorace non breviores. Abdomen alas posticas non aut vix superans. Alæ denticulatæ, plus minusve latæ; anticæ apice rotundatæ, apud costam subconvexæ, margine exteriore mediocriter aut valde obliquo.

Euglyphis, *Hübn. Verz. Schmett.* 190.
Phalæna-Bombyx, p., *Cramer.*

Male. Body hardly thick. Antennæ moderately pectinated, not shorter than the thorax. Abdomen not or hardly extending beyond the hind wings. Wings denticulated, more or less broad. Fore wings slightly convex in front, rounded at the tips, moderately or very oblique along the exterior border.

1. Euglyphis Claudia.

Ferruginea; alæ fascia exteriore testacea intus fusco marginata liturisque discalibus nigris, anticæ apud discum cinereæ fasciis albido-testaceis, posticæ apud costam cinereæ albo fasciatæ.

Phalæna-Bombyx Claudia, *Cram. Pap. Exot.* iv. 185, pl. 383, f. A.
Bombyx Claudia, *Oliv. Enc. Méth.* v. 45, 81.
Euglyphis Claudia, *Hübn. Verz. Schmett.* 190, 1958.

Surinam.

2. Euglyphis Lucilla.

Mas. *Fusca; pedes albidi; alæ anticæ basi nigro conspersæ, macula transversa costali fasciisque tribus angustis exterioribus testaceis, necnon strigis costalibus fasciaque exteriore guttulari nigris; posticæ fasciis duabus angustis cinereis unaque exteriore latiore nigra extus albido marginata.*

Phalæna-Bombyx Lucilla, *Cram. Pap. Exot.* iv. 236, pl. 399, f. A.
Euglyphis Lucilla, *Hübn. Verz. Schmett.* 190, 1959.
Surinam.

Genus 3. HYDRIAS.

Corpus robustum. Proboscis non conspicua. Palpi crassi, pilosissimi, subascendentes, caput perpaullo superantes. Antennæ thoracis longitudine. Pedes validi, dense pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latiusculæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore denticulato subobliquo. *Mas.*— Antennæ late pectinatæ. Alæ breviusculæ. Abdomen alas posticas paullo superans. *Fœm.*—Antennæ sat late pectinatæ. Alæ longiores. Abdomen alas posticas perpaullo superans.

Hydrias, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Ser.* 1.
Rhabdosia, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Trichodæ Hebescentes*), 191.
Olistheria, *Hübn. Verz. Schmett.* (*Phalænæ Heteromorphæ Umbrosæ*), 191.
Streblote, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Trichodæ Elongatæ*), 193.
Mesoscia, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Heteromorphæ Umbrosæ*), 194.

Body stout. Proboscis not visible. Palpi very thick and pilose, obtuse, slightly ascending, extending a little beyond the head. Antennæ as long as the thorax. Legs stout, densely pilose; hind tibiæ with two minute apical spurs. Wings rather broad. Fore wings hardly convex in front, rounded at the tips, slightly notched and slightly oblique along the exterior border; first and second inferior veins contiguous at the base; third remote from the second, and still more remote from the fourth. *Male.*—Antennæ deeply pectinated. Wings rather short. Abdomen extending a little beyond the hind wings. *Female.*—Antennæ nearly as deeply pectinated as in the male. Wings rather longer. Abdomen extending very little beyond the hind wings.

A. Alæ cervino non marginatæ.
A. Alæ anticæ non rufescentes.
a. Abdomen cinereum.
a. Alæ posticæ *fœminæ* basi non rufescentes. Ogenes, *Boisd.*
b. Alæ posticæ *fœminæ* basi rufescentes. - deusta, *Boisd.*

B. Abdomen cervinum aut rufescens.
i. Alæ anticæ albidæ.
* Abdomen nigro fasciatum. - Tharops, *Cram.*
** Abdomen non fasciatum.
† Thorax maculatus. - - - ornata, *Cram.*
†† Thorax non maculatus.
‡ Alæ vittatæ. - - - Vaninia, *Cram.*
‡‡ Alæ non vittatæ.
§ Thorax cinereus. - albidifascia, *Walk.*
§§ Thorax cervinus. - - plana, *Walk.*
ii. Alæ anticæ non albidæ.
* Alæ anticæ cano variæ.
† Alæ posticæ fasciatæ. - - nocens, *Boisd.*
†† Alæ posticæ non fasciatæ. - lignosa, *Walk.*
** Alæ anticæ cano non variæ.
† Alæ anticæ basi guttatæ. - guttularis, *Walk.*
†† Alæ anticæ basi non guttatæ. confusa, *Walk.*
B. Alæ anticæ basi rufescentes. - - - adusta, *Walk.*
B. Alæ cervino marginatæ.
A. Alæ non albidæ. - - - - marginalis, *Walk.*
B. Alæ anticæ albidæ: - - - - pusilla, *Cram.*

1. Hydrias nocens.

Mas. *Cana ; abdomen rufo-ferrugineum ; alæ anticæ fasciis tribus obliquis undulosis ex parte nigro marginatis albis lituraque discali nigra ; posticæ rufo-ferrugineæ, cano marginatæ, antice albidæ, fascia media fuscescente.*

Hydrias nocens, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Ser.* 1, pl. 19, f. 90.

Male. Hoary. Abdomen reddish ferruginous. Fore wings with three undulating oblique partly black-bordered slender white bands, and with a black discal mark. Hind wings reddish ferruginous, with a brownish middle band, whitish in front; borders hoary.

Brazil.

2. Hydrias deusta.

Fœm. *Fusca ; alæ anticæ fascia lata basali obscuriore nigro marginata, macula discali fasciisque duabus exterioribus undulatis obliquis obscurioribus ; posticæ fasciis duabus undulosis cinerascentibus, basi rufescentes.*

Hydrias deusta, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Ser.* 1, pl. 19, f. 91 (1854).

Fem. Brown. Fore wings with a broad dark brown basal band, which is bordered with black; a dark brown discal spot, and beyond the latter two undulating oblique brown bands, the outer one imperfect. Hind wings reddish, brown towards the base, with two undulating entire grayish bands, which correspond to the bands of the fore wings.

Brazil.

3. Hydrias Ogenes.

Mas et fœm. *Cinerea aut albida; antennæ fulvæ; alæ anticæ nigro-fuscæ testaceo aut albido variæ, gutta discali nigra maculisque exterioribus fuscis; posticæ fuscæ, fasciis duabus undulosis cinereis.*

Hydrias Ogenes, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Ser.* 1, pl. 19, f. 88, 89 (1854).

Male and female. Cinereous. Antennæ tawny. Fore wings towards the base blackish brown, varied with testaceous; this colour is bounded by a black slender undulating band, near which there is a blackish discal dot; the exterior part is occupied by some brown spots, of various size and form. Hind wings brown, with two undulating gray bands, adjoining which the brown has a darker hue than that elsewhere. Length of the body 7—9 lines; of the wings 15—20 lines.

Var. β. Female. Wings whitish instead of cinereous; bands very indistinct; blackish brown part varied with whitish instead of testaceous.

a, b. Brazil. From M. Becker's collection.
c—e. Brazil. Presented by E. Doubleday, Esq.
f—h. Rio Janeiro. From Mr. Stevens' collection.

Group 2.

Mas et fœm. Corpus crassum. Palpi porrecti, pilosi, caput sat superantes. Antennæ thoracis longitudine. Abdomen alas posticas paullo superans. Pedes validi, pilosissimi. Alæ latæ, breviusculæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subrecto vix convexo. *Mas.*—Antennæ late pectinatæ. Abdomen apice fasciculatum. *Fœm.*—Antennæ mediocriter pectinatæ.

Male and female. Body thick. Palpi porrect, pilose, extending rather beyond the head. Antennæ as long as the thorax. Abdomen extending a little beyond the hind wings. Legs stout, very pilose. Wings broad, rather short. Fore wings straight in front, rounded at the tips, hardly convex and slightly oblique along the

exterior border; first and second inferior veins nearly contiguous at the base; third remote from the second, and more remote from the fourth. *Male.*—Antennæ deeply pectinated. Abdomen tufted at the tip. *Female.*—Antennæ deeply or moderately pectinated.

4. HYDRIAS LIGNOSA.

Mas et fœm. *Cinerea; antennæ et abdomen cervina; alæ subtus cervinæ; anticæ cervinæ, antice cinereæ, fascia marginali fuscescente fasciisque duabus incompletis angulosis obliquis fuscis.*

Male and female. Cinereous. Antennæ and abdomen fawn-colour. Wings fawn-colour beneath. Hind wings fawn-colour, cinereous in front, and with a brownish band along the exterior border. *Male.*—Fore wings with slender imperfect zigzag oblique brown bands, whose borders are partly whitish; a brown discal dot. *Female.*—Wings longer than those of the male; fore wings with similar bands, but the latter are paler and more indistinct. Length of the body 9—12 lines; of the wings 20—29 lines.

a, *b*. Brazil. From M. Becker's collection.
c. Rio Janeiro. From Mr. Stevens' collection.
d. Brazil.

5. HYDRIAS ADUSTA.

Mas et fœm. *Cinerea, albo rufoque varia; antennæ fulvescentes; abdomen cervinum; alæ anticæ fasciis tribus obliquis cinerascentibus; posticæ cervinæ, antice rufescentes, fascia angulosa marginali cinerascente.*

Male and female. Gray, with mingled white and reddish hairs. Antennæ pale tawny, alike in both sexes. Abdomen fawn-colour. Fore wings reddish, with mingled white hairs, and with three oblique zigzag grayish bands, and with grayish marks along the exterior border. Hind wings fawn-colour, reddish in front and with a zigzag grayish band along the exterior border. *Male.*—Wings smaller than those of the female. Length of the body lines; of the wings 19—23 lines.

a, *b*. Rio Janeiro. From Mr. Stevens' collection.

Group 3.

Mas. Corpus robustum. Palpi validi, pilosi, caput sat superantes; articulus 3us minutus, conicus. Antennæ late pectinatæ, thorace non longiores. Abdomen alas posticas non superans. Pedes validi, densissime pilosi; tibiæ posticæ calcaribus duobus

apicalibus minimis. Alæ latiusculæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore perobliquo subdenticulato vix convexo.

Male. Body stout. Palpi stout, pilose, projecting rather beyond the head; third joint minute, conical. Antennæ deeply pectinated, not longer than the thorax. Abdomen extending as far as the hind wings. Legs stout, very thickly pilose; hind tibiæ with two very minute apical spurs. Wings rather broad. Fore wings slightly convex in front, rounded at the tips, hardly convex, slightly denticulated and very oblique along the exterior border; second inferior vein springing from the first at some distance beyond the end of the discal areolet; third very remote from the second. Hind wings denticulated like the fore wings.

6. Hydrias marginalis.

Mas. *Cervina; alæ raro nigro hirtæ, apud margines cervinæ, linea transversa undulosa albida, guttis marginalibus nigris; anticæ fasciis subobsoletis undulosis albidis, fascia cervina apud marginis interioris apicem dilatata; posticæ fascia una albida sat bene determinata.*

Male. Fawn-colour. Wings thinly clothed with black hairs, fawn-colour along the exterior border and the interior border, the latter in the fore wings, with the fawn-colour along its apical half much broader than that elsewhere; a whitish undulating line divides the blackish hue from the fawn-colour; exterior border with a row of black dots. Fore wings with some indistinct undulating whitish bands. Hind wings with one more distinct whitish band. Length of the body 10 lines; of the wings 28 lines.

a. Parà. From Mr. Stevens' collection.

Group 4.

Corpus sat robustum. Abdomen alas posticas vix superans. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore mediocriter obliquo. *Mas.*—Antennæ sat late pectinatæ. *Fœm.*—Antennæ subpectinatæ.

Body rather stout. Abdomen extending very little beyond the hind wings. Wings moderately broad. Fore wings almost straight along the costa, rounded at the tips, moderately oblique along the exterior border; first and second inferior veins contiguous at the

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base; third rather remote from the second, and much more remote from the fourth. *Male.*—Antennæ rather deeply pectinated. *Female.*—Antennæ slightly pectinated.

7. Hydrias albidifascia.

Mas. *Cervina; thorax cinereus; alæ anticæ albidæ, basi fusco conspersæ, fasciis tribus exterioribus fuscescentibus unaque basim versus obscuriore duplicata angulosa; posticæ apud costam albidæ fusco variæ.*

Male. Fawn-colour. Thorax cinereous. Fore wings whitish, except towards the base, where they are speckled with brown, and have a double angular brown band; three slight paler exterior bands, the third zigzag. Hind wings in front like the exterior part of the fore wings in colour. Under side mostly pale fawn-colour. Length of the body 7 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

8. Hydrias plana.

Mas. *Cervina; antennæ testaceæ; alæ anticæ albidæ, ferrugineo conspersæ fasciisque duabus e lituris cuneatis ferrugineis; posticæ apud costam albidæ cervino strigatæ.*

Male. Fawn-colour. Antennæ testaceous. Fore wings whitish, with numerous ferruginous flecks and with two bands of ferruginous cuneiform marks, the outer marks more elongate and lanceolate than the others. Hind wings whitish along the costa, with transverse fawn-coloured marks. Length of the body 6 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

9. Hydrias guttularis.

Fœm. *Cervina; antennæ testaceæ, ramis cervinis; alæ anticæ e guttis transversis nigricantibus undulatim fasciatæ.*

Female. Fawn-colour. Antennæ testaceous, with fawn-coloured branches. Fore wings with numerous little blackish flecks, which form imperfect undulating bands. Length of the body 6 lines; of the wings 16 lines.

a. Honduras. From Mr. Dyson's collection.

Group 5.

Mas. Corpus sat robustum. Palpi crassi. Antennæ late pectinatæ. Abdomen alas posticas paullo superans. Alæ latiusculæ; anticæ apud costam subconvexæ, apice valde rotundatæ, margine exteriore subconvexo mediocriter obliquo.

Male. Body rather stout. Palpi very stout. Antennæ deeply pectinated. Abdomen extending for one-fourth of its length beyond the hind wings. Wings rather broad. Fore wings slightly convex along the costa, much rounded at the tips, slightly convex and moderately oblique along the exterior border; first and second inferior veins contiguous; third very remote.

10. Hydrias confusa.

Mas. *Cervina; antennæ testaceæ, ramis cervinis; abdomen subtestaceum; alæ anticæ punctis rufescentibus fasciisque nonnullis undulosis fuscis non bene determinatis, posticæ apud venas rufescentes.*

Male. Fawn-colour. Antennæ testaceous, with fawn-coloured branches. Abdomen somewhat testaceous. Fore wings with very minute reddish flecks and with several imperfect undulating brown bands; ciliæ with whitish marks between the veins. Hind wings reddish along the veins and with whitish ciliæ. Length of the body 7 lines; of the wings 16 lines.

Brazil. In Mr. Saunders' collection.

11. Hydrias ornata.

Mas. *Fusco-cervina; thorax maculis duabus posticis lateralibus albis; alæ anticæ albidæ, basi, striga angulosa postica fasciaque angulosa submarginali fusco-cervinis; posticæ albido marginatæ.*

Phalæna-Bombyx ornata, *Cram. Pap. Exot.* iv. 34, pl. 306, f. G.
Bombyx ornata, *Oliv. Enc. Méth.* v. 52, 101.
Streblote ornanda, *Hübn. Verz. Schmett.* 193, 1982.

Surinam.

12. Hydrias? Vaninia.

Cervina; thorax fascia albida apud latera dilatata; alæ albidæ venis nigro punctatis, anticæ venis cervinis, posticæ venis testaceis.

Phalæna-Bombyx Vaninia, *Cram. Pap. Exot.* iv. 128, pl. 356, f. G.

Rhabdosis Vaninia, *Hübn. Verz. Schmett.* 192, 1968·
Olistheria Vaninia, *Hübn. Verz. Schmett.* 194, 1986.
Cape.

13. Hydrias? Tharops.

Cervina; abdomen fasciis nigricantibus; alæ antice albido strigatæ, anticæ fascia media angulata nigricante.

Phalæna-Bombyx Tharops, *Cram. Pap. Exot.* iv. 133, pl. 359, f. A.
Rhabdosia Tharops, *Hübn. Verz. Schmett.* 192, 1969.
Lurinam.

14. Hydrias pusilla.

Mas. *Cervina; alæ anticæ albidæ, cervino marginatæ, fascia obliqua apud medium contracta fusca intus cervino marginata; posticæ fascia marginali pallidiore.*

Phalæna-Bombyx pusilla, *Cram. Pap. Exot.* iv. 220, pl. 395, f. G.
Mesoscia pusilla, *Hübn. Verz. Schmett.* 194, 1991.
Surinam.

Genus 4. CŒCULIA.

Corpus crassum. Alæ latiusculæ; anticæ apice rotundatæ. *Mas.*—Antennæ late pectinatæ, dimidio apicali simplices. Abdomen alas posticas sat longe superans. *Fœm.*—Antennæ mediocriter pectinatæ. Abdomen apice dense fasciculutum, alas posticas paullo superans.

Cœculia, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Ser.* 1, pl. 19.

Body thick. Proboscis not visible. Palpi thick, pilose, porrect, hardly extending beyond the head; third joint short, conical. Antennæ as long as the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Legs stout, densely pilose; hind tibiæ with two very minute apical spurs. Wings broad. Fore wings hardly convex in front, rounded at the tips, hardly convex and slightly denticulated along the exterior border; first and second inferior veins contiguous at the base; third very remote from the second and from the fourth. *Male.*—Antennæ moderately pectinated. Fore wings rather shorter and the exterior border less oblique than in the female. *Female.*—Antennæ pectinated nearly as in the male. Fore wings with the exterior border very oblique.

1. Cœculia Hella.

Mas et Fœm. *Cervina, pilosissima; abdomen apice nigro pilosum; alæ venis albis; alæ fasciis nonnullis subobsoletis undulosis maculisque duabus apicalibus costalibus, una nigra, altera alba; posticæ fascia unica obscuriore.* Fœm.—*Abdomen lanugine anali cervina.*

Cœculia Hella, *Boisd. Herr.-Schæff. Lep. Exot. Sp. Ser.* 1, pl. 19, f. 86, 87 (1854).

Brazil.

Male and *female.* Fawn-colour, very pilose. Abdomen with black hairs at the tip. Veins of the wings mostly white. Fore wings with several indistinct undulating alternately darker and paler bands, the darkest along the exterior border; a black spot and a white spot at the tip of the costa. Hind wings with a single darker band. *Female.*—Abdomen thickly clothed with fawn-coloured wool beyond the black part. Length of the body 10—12 lines; of the wings 18—24 lines.

a, b. Rio Janeiro. From Mr. Stevens' collection.

2. Cœculia mollis.

Fusca; alæ anticæ basi obscuriores strigis basalibus fasciisque duabus exterioribus undulosis nigris, posticæ fasciis duabus anticis abbreviatis exterioribus undulosis nigris.

Phalæna-Bombyx mollis, *Anon. Ins. Surinam,* i. 51, pl. 22.

Surinam.

Genus 5. EUTRICHA.

Corpus pilosum, sat validum. Palpi robusti, pilosissimi, caput superantes. Abdomen alas posticas triente superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latæ; anticæ apud costam subconvexæ, apice subangulatæ, margine exteriore vix convexo plus minusve obliquo. *Mas.*—Antennæ late pectinatæ. Abdomen gracile. *Fœm.*—Antennæ serratæ.

Eutricha, *Hübn. Bomb.; Steph. Ill. Brit. Ent. Haust.* ii. 50.
Phalæna-Bombyx, p., *Linn.; Don.; Stew.; Turt.*
Phalæna, p., *Berk.; Wilkes.*
Bombyx, p., *Fabr.; Schr.; Oliv.; Hübn.; Haw.; Esp.; Illig., &c.*

Lasiocampa, p., *Schr.*; *Hübn.*; *Boisd.*; *Duponch.*
Gastropacha, p., *Ochs.*; *Herr.-Schæff.*
Odenestis, p.; *Curt.*
Cosmotriche, *Hübn.*

Body rather stout, pilose. Palpi very thick and pilose, extending beyond the head, which with them seems to be elongate-conical. Abdomen extending for one-third of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings broad. Fore wings slightly convex along the costa, slightly angular at the tips; exterior margin more or less oblique, hardly convex; first and second inferior veins contiguous at the base; third and fourth remote. *Male.*—Antennæ deeply pectinated. Abdomen more slender than in the female. *Female.*—Antennæ serrated.

1. Eutricha Pini.

Alæ anticæ rufo-cinereæ, fasciata lobata ferruginea utrinque fusca, ante medium puncto triangulari albo; ciliæ fundo concolores.

Eutricha Pini, *Steph. Ill. Brit. Ent. Haust.* ii. 50, 1. *Ochs. Schm. von Eur.* iii. 251.

Gastropacha Pini, *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 104, 10.

Phalæna-Bombyx Pini, *Linn. Syst. Nat.* ii. 814, 24; *Faun. Suec.* 292, 1104. *Gmel. ed. Syst. Nat.* i. 5, 2410, 24. *Don. Nat. Hist. Brit. Ins.* v. 103, pl. 177, 178. *Stew. El. Nat.* ii. 145. *Turt. Syst. Nat.* iii. 102.

Bombyx Pini, *Fabr. Sp. Ins.* ii. 117, 48; *Mant. Ins.* ii. 113, 56; *Ent. Syst.* iii. 1, 426, 62. *Wien. Verz.* 56, 4. *Schr. Faun. Boic.* ii. 1, 272, 1456. *Oliv. Enc. Méth.* v. 46, 85. *Illig. N. Ausg. dess.* i. 106, 4. *Hübn. Bomb.* 147, 2, pl. 142, f. 184, 185; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, S, a, f. 1, a—d. *Schæff. Icon. Nomencl. Panz.* 99. *Wilkes, Nat. Hist.* pl. 61. *Esp. Schm.* iii. 78, pl. 12, f. 1—6, pl. 13, f. 1; 395, pl. 79, f. 7. *God. Lép. de France*, 121, 90, pl. 8, f. 2. *Borkh. Eur. Schm.* iii. 78, 20; *Rhein. Mag.* i. 361, 214. *Fuessl. Schweiz. Ins.* 34, 641; *N. Mag.* iii. 2, 157, 131. *Hüfn. Tab. im Berl. Mag.* ii. 4, 398, 5, 431. *Vieweg, Tab. Verz.* i. 32, 7. *Lang. Verz.* ii. 100, 769—774. *Brahm, Ins. Kal.* 95, 42. *Schwarz, Raup.* 72, 211, 372, 615, 642, 753. *Zett. Ins. Lapp.* 925, 1.

Lasiocampa Pini, *Schr. Faun. Boic.* ii. 2, 154, 4. *Hübn. Verz. Schmett.* 189, 1946.

Phalæna Pini, *Berk. Syn.* i. 133.

Bombyx Pinus, *Haw. Lep. Brit.* 80.
Odenestis Pini, *Curt. Brit. Ent*, i. pl. 7.
——— ———, *Uddm. Diss.* 60. *Merian, Ins. Eur.* pl. 22. *Frisch, Ins.* 10, pl. 10. *Roës. Ins.* i. 2, 297, pl. 59. *Wilk. Pap.* 29, pl. 3, f. 5. *Schæff. Icon.* pl. 86, f. 1—3. *Poda, Ins.* 84, 5. *Pap. d'Eur.* iv. 211, pl. 170, f. 222, pl. 171, f. 222. *Schwarz, Beytr.* 46, pl. 6, f. 7.

a. England. From Mr. Stephens' collection.
b. England.
c—e. Europe. From M. Becker's collection.
f. ———?

Group 2. , ,

Corpus robustum. Palpi validi, porrecti, pilosi, caput paullo superantes; articulus 3us parvus, obtusus. Antennæ thorace paullo longiores. Abdomen alas posticas superans. Pedes validi, dense pilosi; tibiæ posticæ calcaribus quatuor parvis. Alæ mediocriter latæ et longæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore obliquo integro, interiore non fasciculato. *Mas.*—Antennæ latissime pectinatæ. Abdomen alas posticas triente superans. *Fœm.*—Antennæ subpectinatæ. Abdomen alas posticas paullo superans.

Body stout. Palpi stout, porrect, pilose, extending very little beyond the head; third joint small, obtuse. Antennæ very little longer than the thorax. Abdomen extending more or less beyond the hind wings. Legs stout, thickly pilose; hind tibiæ with four short spurs. Wings moderately long and broad. Fore wings hardly convex in front, rounded at the tips, oblique and entire along the exterior border; interior border straight, not tufted; three inferior veins; first and second contiguous at the base; third remote. *Male.*—Antennæ very deeply pectinated. Abdomen extending for one-third of its length beyond the hind wings. *Female.*—Antennæ very minutely pectinated. Abdomen extending for hardly one-fourth of its length beyond the hind wings.

2. EUTRICHA LINEOSA.

Mas et fœm. *Cinereo-cana; alæ anticæ lineis duabus discalibus strigisque duabus subapicalibus angulosis nigris.*

Lasiocampa lineosa, *Boisd.; Treits.; Freyer, Neue Lep. Beitr.; Duponch. Suppl. Lep. France*, iii. 97, pl. 9, f. 1. *Boyer de Fouscol. Ann. Soc. Ent. Fr. 2me Sér.* ii. *Bull.* 60.

Gastropacha lineosa, *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 105, 11.

a, *b*. Europe. From M. Becker's collection.

Group 3.

Corpus sat robustum. Palpi pilosissimi, caput vix superantes. Antennæ thorace longiores. Abdomen alas posticas paullo superans. Alæ latæ; anticæ apud costam subrectæ, apice subacuminatæ, margine exteriore mediocriter obliquo. *Mas.*—Antennæ mediocriter pectinatæ. *Fœm.*—Antennæ subpectinatæ.

Body moderately stout. Palpi very pilose, hardly extending beyond the head; third joint obtuse. Antennæ longer than the thorax. Abdomen extending very little beyond the hind wings. Wings broad. Fore wings slightly acuminated, almost straight along the costa; exterior border moderately oblique; first inferior vein very near the second at the base; third very remote from the second and from the fourth.

3. Eutricha lobulina.

Alæ cinereæ, fasciis duabus nigris albido marginatis lunulaque media alba; ciliæ niveæ, in venis nigræ.

Bombyx lobulina, *Wien. Verz.* 57, 6. *Fabr. Ent. Syst. Suppl.* 436, 83, 4. *Zett. Ins. Lapp.* 925, 3. *Illig. N. Ausg. dess.* i. 112, 6. *Hübn. Beitr.* ii. 1, 2, 17, 122, pl. f. 4; *Bomb* 145, 1, pl. 41, f. 180, 181; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, B, a, f. 1. *God. Lép. de France*, iv. 116, pl. 12, f. 1, 2. *Schwarz, Beitr.* 79, 28, pl. 12, f. 1—5; *Raup.* 262. *Esp. Schm.* iii. 15, pl. 82. *Cont.* 3, f. 3, 4. *Borkh. Eur. Schm.* iii. 464, 27, 28. *Lang. Verz.* ii. 103, 795, 796.

Bombyx lunigera, *Fabr. Ent. Syst.* iii. 1, 428, 66. *Hübn. Bomb.* 146, 2; *Larv. Lep.* f. 2, a, b. *Esp. Schm.* iii. 114, pl. 22, f. 5, 6; 68, pl. 91. *Cont.* 12, f. 3—6. *Borhh. Eur. Schm.* iii. 48, 7.

Bombyx borealis, *Borkh. Eur. Schm.* iii. 83, 21.

——— ———, *Pap. d'Eur. Suppl.* pl. 6, f. 227.

Gastropacha lobulina, *Ochs. Schmett. von Eur.* iii. 258, 8. *Herr.-Schæff. Schmett. Eur. Text*, ii. 104, 9. *Freyer, Neue Lep. Beitr.* 126, 122; 181, pl. 68.

Gastropacha lunigera, *Freyer, Neue Lep. Beitr.* i. 127, 123, pl. 69.

Cosmotriche lobulina, *Hübn. Verz. Schmett.* 189, 1940.
Cosmotriche lunigera, *Hübn. Verz. Schmett.* 189, 1941.
Lasiocampa lobulina, *Boisd. Gen. Eur. Lep.* 72, 592.

a—d. Europe. From M. Becker's collection.
e. ——— ?

Genus 6. ODENESTIS.

Corpus crassum. Palpi validi, pilosi, porrecti, caput longe superantes; articulus 3us elongatus. Antennæ thorace multo longiores. Abdomen alas posticas triente superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ, subdenticulatæ; anticæ vix acuminatæ, apud costam subrectæ, margine exteriore recto aut vix convexo, parum obliquo. *Mas.*—Antennæ latissime pectinatæ. *Fœm.*—Antennæ subpectinatæ.

Odenestis, *Germar; Steph. Ill. Brit. Ent. Haust.* ii. 51. *Boisd. Herr.-Schæff.*
Phalæna-Bombyx, p., *Linn.; Don.; Stew.; Turt.*
Phalæna, p., *List, Albin; Wilkes; Harris.*
Bombyx, p., *Fabr.; Esp.; Illig.; Schr.; Hübn.; Haw.; Borkh.; God.; &c.*
Losiocampa, *Schr.*
Gastropacha, p., *Ochs. Herr.-Schæff.*
Odenestis, p., *Curt.*

Body thick. Palpi stout, pilose, porrect, extending far beyond the head; third joint much elongated. Antennæ generally much longer than the thorax. Abdomen extending for one-third of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings broad, very slightly denticulated. Fore wings hardly acuminated, almost straight along the costa, straight or hardly convex along the exterior border; second inferior vein almost contiguous to the first; third very remote from the second and from the fourth. *Male.*—Antennæ deeply or very deeply pectinated. *Female.*—Antennæ slightly pectinated.

A. Aurantiaco miniacea; alæ anticæ puncto medio albo; linea posterior longe ante apicem excurrens. - Pruni, *Linn.*
B. Fusca (*mas*) aut ochracea (*fœm.*); alæ anticæ puncto medio gemino albo; linea posterior in apicem alæ excurrens. potatoria, *Linn.*

1. ODENESTIS POTATORIA.

Alæ anticæ luteæ, flavo nebulosæ, strigis duabus obliquis fuscis, lunula punctoque albis.

Odenestis potatoria, *Steph. Ill. Brit. Ent. Haust.* ii. 51.

Phalæna-Bombyx potatoria, *Linn. Syst. Nat.* ii. 813, 23. *Gmel. ed. Syst. Nat.* i. 5, 2410, 23. *Donov. Hist. Nat. Brit. Ins.* v pl. 148. *Stew. El. Nat. Hist.* ii. 145. *Turt. Syst. Nat.* iii. 201.

Phalæna potatoria, *Berk. Syn.* i. 133.

———— ————, *Goëd. Ins.* i. pl. 12. *List. Goëd.* (Angl.) 82, f. 82; (Lat.) 195, f. 82. *Rai, Ins.* 143, 3. *Wilkes, Pap.* 27, pl. 58. *Harr. Aur.* pl. 42. *Albin, Hist. Nat. Engl. Ins.* pl. 17. *Merian, Ins. Eur.* 27, pl. 16. *Roës. Ins.* i. 29, pl. 11. *Schæff. Icon.* pl. 67, f. 10, 11. *Sepp. Ins.* iv. 37, pl. 8. *Pap. d'Eur.* v. 1, pl. 172, f. 223.

Bombyx potatorius, *Hur. Lep. Brit.* 49.

Odenesis potatoria, *Sam. Ent. Comp.* 247, pl. 12, f. 3.

Gastropacha potatoria, *Ochs. Schmett. von Eur.* iii. 256, 7. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 104, 8.

Bombyx potatoria, *Fabr. Sp. Ins.* ii. 176, 4; *Mant. Ins.* ii. 112, 52; *Ent. Syst.* iii. 1, 425, 58. *Wien. Verz.* 56, 1. *Rossi, Faun. Etr.* ii. 169, 1076; *Ed. Illig.* 271, 1076. *Illig. N. Ausg. dess.* i. 108, 1. *Oliv. Enc. Méth.* v. 43, 74. *Hübn. Bomb.* 146, 3, pl. 41, f. 182, 183; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, R. H. f. 1, a—e. *Schæff. Icon. Nomencl. Panz.* 85. *Wilkes, Nat. Hist.* pl. 58. *Esp. Schmett.* iii. 75, pl. 11, f. 1—5. *Borkh. Eur. Schmett.* iii. 97, 26; *Rhein. Mag.* i. 364, 219. *Fuessl. Schweiz, Ins.* 34, 640; *A. Mag.* i. 2, 270; *N. Mag.* ii. 59, 23. *Müll. Faun. Fridr.* 40, 359. *Zool. Dan.* 117, 1352. *Hufn. Tab. in Berl. Mag.* ii. 4, 398, 4, 430, D. *Schr. Faun. Boic.* ii. 1, 273, 1457. *Vieweg, Tab. Verz.* i. 35, 12. *Lang. Verz.* ii. 101, 775—781. *Brahm, Ins. Kal.* 202, 104. *Schwarz, Raup.* 71, 210, 511, 641, 753. *God. Lép. de France*, iv. 92, pl. 8, f. 3, 4.

Lasiocampa potatoria, *Schr. Faun. Boic.* ii. 2, 154, 6.

Cosmotriche potatoria, *Hübn. Verz. Schmett.* 188, 1939.

a—l. England. From Mr. Stephens' collection.
m—o. England. From Mr. Foxcroft's collection.
p—v. England.
u—y. Europe. From M. Becker's collection.
z. Europe. From Mr. Children's collection.
aa. Europe.

2. Odenestis Pruni.

Aurantiaco miniacea ; alæ anticæ puncto medio albo ; linea posterior longe ante apicem excurrens.

Phalæna-Bombyx Pruni, *Linn. Syst. Nat.* ii. 813, 22. *Gmel. ed. Syst. Nat.* i. 5, 2409, 22.

——— ———, *Roës, Ins.* i. 2, pl. 36. *Schæff. Icon.* pl. 60, f. 6, 7. *Pap. d'Eur.* iv. 209, pl. 169, f. 221.

Gastropacha Pruni, *Ochs. Schmett. von Eur.* iii. 254, 6. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 104, 7.

Chrostogastris Pruni, *Hübn. Verz. Schmett.* 189, 1949.

Bombyx Pruni, *Fabr. Sp. Ins.* ii. 176, 41 ; *Mant. Ins.* ii.; *Ent. Syst.* iii. 1, 424, 56. *Wien. Verz.* 36, 3. *Müll. Zool. Dan.* 117, 1351. *Schr. Faun. Boic.* ii. 1, 271, 1455. *Oliv. Enc. Méth.* v. 43, 71. *Hübn. Bomb.* 147, 1, pl. 42, f. 186; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, S, a, f. 1, a—c. *Illig. N. Ausg. dess.* i. 106, 3 ; *Mag.* ii. 53, 3. *Schæff. Icon. Nomencl. Panz.* 78. *Esp. Schmett.* iii. 72, pl. 10, f. 1—4. *Borkh. Eur. Schmett.* iii. 75, 19; *Rhein. Mag.* iii. 2, 160, 166. *Hüfn. Tab. im Berl. Mag.* ii. 4, 394, 3, 430, C. *Naturf.* viii. 101, 3. *Lang. Verz.* ii. 100, 767, 768. *Schwarz, Raup.* 70, 210, 750. *Scriba, Journ.* iii. 224, 3. *God. Lép. de France*, iv. 87, pl. 8, f. 1.

Lasiocampa Pruni, *Schr. Faun. Boic.* ii. 2, 154, 3.

a. Europe. From M. Becker's collection.
b. Europe. From Mr. Milne's collection.

Africa.

3. Odenestis reducta.

Fœm. *Rufo-ferruginea ; antennæ albidæ, ramis fulvis ; alæ subtus basim versus albidæ, anticæ gutta discali alba.*

Female. Ferruginous-red. Antennæ whitish, with tawny branches. Wings whitish beneath towards the base. Fore wings with a white discal dot above. Length of the body 9 lines; of the wings 20 lines.

a. Zoolu Country, South Africa. Presented by F. Angus, Esq.

Asia.

Group 1.

Fœm. Corpus crassum. Palpi porrecti, crassi, pilosissimi, capite duplo longiores. Antennæ subpectinatæ, thorace paullo longiores. Abdomen alas posticas vix superans. Pedes validi, pilosi, longiusculi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longæ sat latæ; anticæ acuminatæ, apud costam subconvexæ, margine exteriore perobliquo subdenticulato.

Female. Body thick. Palpi porrect, very stout and pilose, about twice the length of the head. Antennæ minutely pectinated, a little longer than the thorax. Abdomen extending very little beyond the hind wings. Legs stout, pilose, rather long; hind tibiæ with two very minute apical spurs. Wings long, rather broad. Fore wings acuminated, slightly convex in front, slightly convex, indistinctly denticulated and very oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third remote.

4. Odenestis ampla.

Fœm. *Pallide subcinereo-cervina; alæ anticæ fasciis sex angustis obliquis subundulosis pallide fuscis, guttaque discali alba, fascia 6a guttulari.*

Female. Pale fawn-colour, with a slightly cinereous tinge. Abdomen and hind wings a little darker and not cinereous. Fore wings with six pale brown oblique slender slightly undulating more or less indistinct bands, the sixth composed of dots and rather darker than the others; a white discal dot on the first band. Length of the body 20 lines; of the wings 64 lines.

a. Silhet. From the Rev. J. Stainforth's collection.
b, c. Silhet. Presented by E. Doubleday, Esq.

5. Odenestis? servula.

Alæ luteæ, macula parva discali marginibusque externis fuscis.

Phalæna (Noctua) servula, *Drury, Ins. Exot.* ii. 20, pl. 11, f. 4. *App.* ii.
Odenestis? servula, *Westw. ed. Drury*, ii. 22, pl. 11, f. 4.

Madras.

Genus 7. AMYDONA.

Fœm. Corpus crassum. Proboscis non conspicua. Palpi brevissimi, caput non superantes; articulus 3us minimus. Antennæ serratæ. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ longiusculæ, sat latæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore perobliquo; posticæ abdomen non superantes.

Female. Body thick. Proboscis not visible. Palpi very short, not extending beyond the head; third joint very small. Antennæ serrated. Legs stout; hind tibiæ with two small apical spurs. Abdomen extending as far as the hind wings. Wings rather long, moderately broad. Fore wings very slightly convex in front, rounded at the tips, very oblique along the exterior border; first and second inferior veins contiguous at the base; third more than twice further from the fourth than from the second.

South America.

1. AMYDONA HUMERALIS.

Mas. *Fulva; palpi, antennæ, tibiæ tarsique nigra; thorax fusco bifasciculatus, apud alas testaceus; abdomen fasciis nigris subtus interruptis; alæ anticæ cervinæ, fasciis duabus undulosis angustis subobliquis fuscis maculaque intermedia lutea; posticæ fusco unifasciatæ.*

Male. Tawny. Palpi and antennæ black. Thorax with a tuft of dark brown hairs on each side, testaceous towards the wings. Abdomen with black bands, which are widely interrupted on the under side. Tibiæ and tarsi black. Fore wings fawn-colour, with two undulating slender slightly oblique brown bands, and a luteous spot between them on the discal areolet. Hind wings with a single slightly undulating and more oblique brown band. Length of the body 10 lines; of the wings 27 lines.

a. Port Famine. Presented by C. Darwin, Esq.

2. AMYDONA GUTTULARIS.

Fœm. *Testacea; antennæ nigræ, apice fulvæ; alæ anticæ fasciis tribus angulosis aut guttularibus guttaque discali fuscis, posticæ luteæ, margine interiore testaceo.*

Female. Pale testaceous. Antennæ black, slightly pectinated, tawny beneath towards the tips. Fore wings with three irregular oblique zigzag brown bands, the outermost one interrupted and

more oblique than the others; a brown discal dot between the first and second bands. Hind wings dark luteous, pale testaceous along the interior border. Length of the body 11 lines; of the wings 34 lines.

a. South Africa. Presented by Dr. A. Smith.

Group 2.

Mas. Corpus sat robustum. Palpi validi, pilosissimi; articulus 3us brevis. Antennæ latissime pectinatæ, thorace longiores. Alæ latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore vix convexo parum obliquo; posticæ abdomen non superantes.

Male. Body rather stout. Palpi stout, very pilose; third joint short. Antennæ very deeply pectinated, longer than the thorax. Abdomen extending as far as the hind wings. Wings broad. Fore wings straight in front, rounded at the tips, hardly convex and but slightly oblique along the exterior border; discal areolet open; second inferior vein almost contiguous to the first, remote from the third.

3. AMYDONA UNICOLOR.

Mas. *Testaceo-albidæ; antennæ fulvæ; palpi nigricantes, subtus fulvescentes; pedes supra nigricantes.*

Male. Whitish, with a slight testaceous tinge. Palpi blackish, somewhat tawny beneath. Antennæ tawny. Legs blackish above. Length of the body 12 lines; of the wings 26 lines.

a. Gambia. Presented by — Randall, Esq.

Asia.

A. Alæ non viridescentes.
  A. Alæ anticæ litura nulla argentea.
    a. Abdomen *fœminæ* apice lanuginosum. - varia, *Walk*.
    b. Abdomen apice non lanuginosum. - basalis, *Walk*.
  B. Alæ anticæ litura argentea. - - - læta, *Walk*.
B. Alæ viridescentes.
  A. Alæ fascia obscuriore. - - - - prasina, *Walk*.
  B. Alæ fascia pallidiore. - - - - pallida, *Walk*.

4. AMYDONA VARIA.

Fœm. *Testacea; caput et thorax cervina; abdomen apice dense lanuginosum; alæ fasciis tribus angulosis cervinis; anticæ annulo discali cervino.*

Female. Testaceous. Head, thorax, pectus and legs fawn-colour. Abdomen thickly lanuginose at the tip. Wings with three irregular oblique and zigzag fawn-coloured bands, the third broader than the other two and near the exterior border. Fore wings with an irregular fawn-coloured ringlet between the first and second bands. Length of the body 13 lines; of the wings 38 lines.

a. Silhet? Presented by E. Doubleday, Esq.

5. AMYDONA BASALIS.

Fœm. *Flava aut lutea; alæ fasciis duabus angustis subfuscescentibus, exteriore guttulari; anticæ fascia basim versus fuscescente, macula discali fuscescente aut albida, plagaque postica basali fuscescente aut ferruginea.*

Female. Yellow. Head and thorax in front luteous. Antennæ testaceous. Abdomen thickly tufted at the tip with testaceous hairs. Wings with two slight oblique brownish bands, the exterior one somewhat undulating and more or less interrupted. Fore wings with a brownish oblique band near the base, a brown discal spot, behind which towards the base there is a large brownish interval. Hind wings with three bands on the under side. Length of the body 7—11 lines; of the wings 18—32 lines.

Var. β. Head and fore part of the thorax partly brownish. Fore wings brownish behind towards the base.

Var. γ. Luteous. Abdomen with whitish hairs at the tip. Discal spot of the fore wings whitish, bordered with brown; hind patch pale brown, traversed by two reddish streaks.

Var. δ like *var.* γ. Hind patch traversed by two brown streaks.

Var. ε like *var.* δ. Hind patch whitish, bordered with brown.

Var. ζ like *var.* δ. Discal spot larger; hind patch reddish.

a, b. North India. From Mr. James' collection.
c. Silhet. From Mr. Sowerby's collection.
d, e. East Indies. From Archdeacon Clerk's collection.
f. North India. From Mr. Stevens' collection.
g. Ceylon. From the Rev. J. Wenham's collection.
h, i. Ceylon. Presented by R. Templeton, Esq.
j, k. Java. From the East India Company's collection.
l. Hong Kong. Presented by J. C. Bowring, Esq.

This species in Ceylon and Java is smaller and more testaceous or luteous than in Hindostan, and the specimen from Hong Kong is more brightly coloured.

Group 2.

Mas. Corpus sat robustum. Proboscis non conspicua. Palpi validi, porrecti, caput longe superantes; articulus 3us parvus, acuminatus. Antennæ sat late pectinatæ, thorace vix breviores. Abdomen alas posticas vix superans. Pedes validi, vix pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longiusculæ, mediocriter latæ; anticæ acuminatæ, apud costam subconvexæ, margine exteriore subconvexo perobliquo.

Male. Body rather stout. Proboscis not visible. Palpi stout, porrect, extending far beyond the head; third joint small, acuminated. Antennæ rather deeply pectinated, almost as long as the thorax. Abdomen extending very little beyond the hind wings. Legs stout, hardly pilose; hind tibiæ with two extremely minute apical spurs. Wings rather long, moderately broad. Fore wings acuminated, slightly convex in front, slightly convex and very oblique along the exterior border; first and second inferior veins springing from a very long petiole beyond the end of the discal areolet; third remote from the second and from the fourth.

6. Amydona læta.

Mas. *Lutea aut rufescens, flavo plagiata; caput et thorax subcervina; palpi ferruginei; antennæ testaceæ; alæ anticæ fascia basim versus angusta undulosa cervina, fascia exteriore perobliqua subpurpurascente nitente intus fusco marginata extus diffusa, lituraque discali argentea; posticæ cervinæ, basi subtestaceæ.*

Male. Luteous. Head, thorax and under side somewhat fawn-colour. Palpi ferruginous. Antennæ testaceous. Abdomen paler than the thorax. Fore wings with a slender upright undulating fawn-coloured band near the base, with a very oblique pale purplish shining band near the exterior border, which band is bordered with brown on its inner side and is diffuse on its outer side; a spot and a dot in the disk of a silvery white hue, the dot in front of the spot. Hind wings fawn-colour, somewhat testaceous towards the base. Length of the body 12—14 lines; of the wings 30—32 lines.

Var. β. Fore wings reddish instead of luteous, yellowish along the basal part of the interior border.

a. Silhet. From the Rev. J. Stainforth's collection.

7. Amydona prasina.

Mas. *Pallide prasina; antennæ albidæ, ramis testaceis; abdomen albidum; tarsi fuscescentes; alæ fasciis duabus saturatioribus, una recta, altera angulosa; anticæ striga transversa basali saturatiore fasciaque diffusa albida; posticæ apud marginem interiorem albidæ.*

Male. Pale grass-green. Antennæ whitish, with testaceous branches. Abdomen whitish. Tarsi pale brown. Wings with two darker green bands; the interior one straight, accompanied in the fore wings by a diffuse whitish band on its inner side; the outer one zigzag. Fore wings with a darker green band near the base. Hind wings whitish along the interior border. Length of the body 8—11 lines; of the wings 17—26 lines.

a. North India. From Mr. Stevens' collection.
b. East Indies. From Archdeacon Clerk's collection.
c. Ceylon. From the Rev. J. Wenham's collection.
d. Hong Kong. Presented by J. C. Bowring, Esq.

8. Amydona pallida.

Mas. *Viridescens; caput antice fulvum; palpi fulvi; antennæ albidæ, ramis ferrugineis; thorax postice albidus; pectus albidum; abdomen subroseo-albidum; alæ fascia angusta media obscuriore obliqua, anticæ strigæ interiore obliquo.*

Male. Head green, tawny in front. Palpi tawny. Antennæ whitish, with ferruginous branches. Thorax green in front, whitish behind. Pectus whitish. Abdomen whitish, with a slight rosy tint. Legs greenish. Wings pale green, with a rather darker slender oblique middle band. Fore wings with a whitish streak on the inner side of the green band. Hind wings whitish along the inner border. Length of the body 7 lines; of the wings 16 lines.

a. Java. From the East India Company's collection.

Genus 8. OEONA.

Fœm. Corpus vix robustum. Palpi validi, porrecti, caput sat longe superantes; articulus 3us parvus, conicus, acuminatus. Antennæ subpectinatæ, thorace vix longiores. Abdomen alas posticas paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longiusculæ, mediocriter latæ; anticæ subacuminatæ, apud costam subconvexæ, margine exteriore perobliquo subconvexo subdenticulato.

Female. Body hardly stout. Palpi stout, porrect, extending rather far beyond the head; third joint small, conical, acuminated. Antennæ minutely pectinated, hardly longer than the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings moderately broad, somewhat long. Fore wings slightly acuminated, slightly convex in front, very oblique, slightly convex and indistinctly denticulated along the exterior border; first and second inferior veins nearly contiguous; third moderately remote from the second and from the fourth.

1. OEONA PUNCTATA.

Fœm. *Cervina; antennæ testaceæ, ramis fulvis; alæ anticæ fasciis duabus indistinctis undulosis pallidioribus marginatis, guttis exterioribus fuscis, guttaque basim versus albida; posticæ subpallidiores.*

Female. Fawn-colour. Antennæ testaceous, with tawny branches. Fore wings with a whitish dot in the disk at one-third of the length, and with two undulating indistinct paler bands, with darker borders between the dot, and an undulating more oblique row of brown dots. Hind wings a little paler than the fore wings. Length of the body 10—11 lines; of the wings 26—28 lines.

a. Hong Kong. Presented by J. C. Bowring, Esq.
b. North China. From Mr. Cuming's collection.

Genus 9. OPSIRHINA.

Fœm. Corpus crassum. Palpi capite plus duplo longiores. Antennæ subpectinatæ, thoracis longitudine. Abdomen alas posticas paullo superans. Alæ longiusculæ, mediocriter latæ; anticæ acuminatæ, apud costam vix convexæ, margine exteriore recto perobliquo.

Female. Body thick. Palpi more than twice the length of the head. Antennæ minutely pectinated, about as long as the thorax. Abdomen extending a little beyond the hind wings. Wings rather long, moderately broad. Fore wings acuminated, hardly convex in front, straight and very oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third remote from the second and still more remote from the fourth.

A. Alæ anticæ *maris* albo variæ. - - - albigutta, *Walk.*
B. Alæ anticæ non albo variæ.
A. Antennæ nigræ, apice luteæ. - - - fervens, *Walk.*
B. Antennæ testaceæ.
a. Alæ posticæ fascia nulla nigricante. - nasuta, *Lewin.*
b. Alæ posticæ fascia nigricante. - - - nana, *Walk.*

1. Opsirhina fervens.

Cervina ; palpi rosei ; antennæ nigræ, basi rufescentes, apice luteæ ; pectus cinereum ; abdomen testaceum, subtus cinereum ; pedes rufescentes ; alæ anticæ rufo conspersæ, fasciis tribus angustis subundulosis maculaque obscuriore fuscis ; posticæ luteæ, fascia subobsoleta obscuriore.

Fawn-colour. Palpi rosy red. Antennæ black, reddish at the base, luteous at the tips. Pectus cinereous. Abdomen testaceous above, cinereous beneath. Legs mostly reddish. Fore wings minutely speckled with red, with three pale brown slender slightly undulating bands, and with a rather darker brown discal dot; first band near the base; second and third beyond the middle, more oblique than the first. Hind wings luteous, with an indistinct darker band; under side testaceous, slightly cinereous in front, and with two brownish bands, of which the exterior one is occasionally obsolete. Length of the body 11—18 lines; of the wings 28—42 lines.

a, b. Van Dieman's Land. Presented by Morton Allport, Esq.
c. Sydney. Presented by Dr. Sinclair.
d. Australia. From Mr. Stevens' collection.
e. Australia. Presented by H. G. Harrington, Esq.
f. Sydney. From Mr. Lambert's collection.
g. Van Dieman's Land. From Mr. A. J. Smith's collection.
h, i. Van Dieman's Land. Presented by R. Butler, Esq.

2. Opsirhina albigutta.

Ferruginea ; palpi supra cani ; antennæ albidæ ; abdomen et alas posticas rufescentia ; tarsi nigricantes, albo fasciati ; alæ anticæ lineis duabus transversis obliquis pallidis fasciaque exteriore e guttis nigricantibus. Mas.—*Alæ anticæ macula costali alba, plaga postica albida, margine exteriore cana.* Fœm. —*Alæ anticæ postice subtestaceæ.*

Ferruginous. Head hoary in front. Palpi hoary above, dark ferruginous beneath. Antennæ whitish. Abdomen and hind wings reddish. Tarsi blackish; joints with white tips. Wings with a white-bordered fringe. Fore wings with two very slender oblique pale bands, with an intermediate discal spot, and with an exterior band of blackish dots. *Male.*—Fore wings with a white discal spot, with a larger hinder whitish mark, hoary towards the exterior border. *Female.*—Fore wings with a brown discal spot, mostly somewhat testaceous. Length of the body 9—12 lines; of the wings 18—28 lines.

Var. β. Fœm. *Rufo-cervina; caput supra albidum; palpi supra albidi, lateribus nigricantibus; antennæ albæ, ramis fulvis; abdomen pallide cervinum; tibiæ apices versus nigræ; tarsi nigri, albo cincti; alæ anticæ fasciis duabus obliquis subundulosis guttaque discali intermedia albidis, fasciaque exteriore e guttis nigricantibus.*

Female. Reddish fawn-colour. Head whitish above. Palpi whitish above, with a black stripe along each outer side. Antennæ white, with tawny branches. Abdomen pale fawn-colour. Tibiæ with some white hairs, black towards the tips, which are white. Tarsi black, with white bands. Wings with white-bordered ciliæ. Fore wings with two slender oblique slightly undulating whitish bands, with a whitish intermediate discal mark, and with an irregular exterior band composed of blackish dots. Length of the body 12 lines; of the wings 26 lines.

a—d. Van Dieman's Land. Presented by R. Butler, Esq.
e—g. Van Dieman's Land. Presented by Morton Allport, Esq.
h. Van Dieman's Land. From Mr. A. J. Smith's collection.

3. Opsirhina nasuta.

Mas. *Rufo-ferrugineus; abdomen apice testaceum; alæ anticæ fasciis nonnullis subobsoletis angulosis obscurioribus guttaque discali fusca.*

Bombyx nasuta, *Lewin, Prodr. Ent.* 6, pl. 5.
Lasiocampa nasuta, *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 228.

Male. Reddish ferruginous. Palpi extending far beyond the head. Antennæ testaceous. Abdomen testaceous at the tip. Fore wings with some very indistinct slender zigzag darker bands, which cease at three-fourths of the length from the base, and with a brown discal dot. Length of the body 6 lines; of the wings 14 lines.

a. Australia. From Mr. Lambert's collection.
b—*i*. Van Dieman's Land. Presented by R. Butler, Esq.
j—*o*. Australia. Presented by Major-Gen. Hardwicke.
p. Van Dieman's Land. Presented by the Rev. Augustus Beaufort.
q. New South Wales. From Mr. Wood's collection.
r. Adelaide. From Mr. Stevens' collection.
s. Van Dieman's Land. Presented by Morton Allport, Esq.
t. Van Dieman's Land. From Mr. A. J. Smith's collection.
u. Van Dieman's Land. Presented by E. Doubleday, Esq.
v, *w*. Van Dieman's Land.
x. Australia.

4. Opsirhina nana.

Mas. *Ferrugineo-rufa ; palpi caput longe superantes, articulo 3o elongato ; antennæ testaceæ ramis nigricantibus ; alæ posticæ fascia indeterminata nigricante.*

Male. Ferruginous-red. Palpi extending far beyond the head; third joint elongated. Antennæ testaceous, with blackish branches. Hind wings with an imperfect blackish band. Length of the body 5 lines; of the wings 10 lines.

a. Van Dieman's Land. Presented by Morton Allport, Esq.

Genus 10. POLYMONA.

Fœm. Corpus robustum. Proboscis non conspicua. Palpi porrecti, acuminati, caput sat longe superantes. Antennæ thorace breviores, mediocriter pectinatæ, basim versus late pectinatæ. Abdomen alas posticas paullo superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ mediocriter pectinatæ, margine exteriore denticulato; anticæ apud costam subrectæ, margine exteriore mediocriter obliquo antice hamato.

Female. Body stout. Proboscis not visible. Palpi stout, porrect, acuminated, extending rather far beyond the head. Antennæ shorter than the thorax, moderately pectinated, rather deeply so towards the base. Abdomen extending a little beyond the hind wings. Legs stout; hind tibiæ with two very minute apical spurs. Wings moderately broad, denticulated along the exterior border. Fore wings straight in front till near the tips, where they are slightly rounded, hooked before the middle of the exterior border, which is moderately oblique; second inferior vein full four times further from the third than from the first; third very remote from the second and from the fourth.

1. POLYMONA HAMATA.

Fœm. *Lætè cervina; antennæ testaceæ, ramis fulvis; pectus album; abdomen ferrugineo-rufum; pedes rufescentes, tarsis albis; alæ anticæ striga costali guttisque basalibus cinereis, necnon fasciis subundulosis perangustis testaceis.*

Female. Bright fawn-colour. Antennæ testaceous, with tawny branches. Pectus white. Abdomen and legs ferruginous-red. Tarsi white. Fore wings cinereous along the costa towards the tip, and with three very slender slightly undulating testaceous bands; two or three indistinct gray discal dots near the base and one in the disk; fringe whitish, partly ferruginous. Length of the body 11 lines; of the wings 29 lines.

a. ——— ? From Mr. Children's collection.

Genus 11. PACHYPASA.

Corpus valde crassum. Palpi crassi, pilosi, obtusi, caput paullo superantes. Antennæ subconvoluto sinuatæ, thorace non longiores. Abdomen alas posticas superans. Pedes robusti, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longiusculæ, vix latæ; anticæ apud costam vix convexæ, apice subrotundatæ, margine exteriore perobliquo. *Mas.* — Antennæ latissime pectinatæ, apices versus mediocriter pectinatæ, thorace vix breviores. Abdomen alas posticas dimidio superans. *Fœm.*—Antennæ serrato pectinatæ, thorace multo breviores. Abdomen alas posticas triente superans.

Sphinx, p., *Drury.*
Bombyx, p., *Fabr.; Oliv.*
Lasiocampa, p., *Boisd.*
Gastropacha, p., *Westw.; Herr.-Schæff.*

Body very thick. Proboscis not visible. Palpi stout, pilose, extending a little beyond the head; third joint obtuse. Antennæ not longer than the thorax. Abdomen extending beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings rather long, hardly broad. Fore wings hardly convex in front, slightly rounded at the tips, very oblique along the exterior border; first and second inferior veins approximate at the base; third remote from the second and from the fourth. *Male.*— Antennæ hardly shorter than the thorax, very deeply pectinated for two-thirds of the length, moderately pectinated from thence to the

tips. Abdomen extending for half its length beyond the hind wings. *Female.*—Antennæ serrated or very minutely pectinated, much shorter than the thorax. Abdomen extending for one-third of its length beyond the hind wings.

1. Pachypasa Otus.

Alæ elongatæ integræ lutco-fuscæ, anticæ fasciis duabus denticulatis nigris.

Sphinx Otus, *Drury, Ins.* i. 30, pl, 16, f. 3. *Append.* ii.
Bombyx Agrius, *Oliv. Enc. Méth.* v. 39, 56.
Bombyx dryophaga, *Fabr. Ent. Syst. Suppl.* 23, 24.
Gastropacha? Otus, *Westw. ed. Drury*, i. 30, pl. 16, f. 3.
Lasiocampa Otus, *Boisd. Gen. et Ind. Méth. Eur. Lep.* 72, 594.
Gastropacha dryophaga, *Herr.-Schæff. Samml. Eur. Schmett. Schæff. Suppl.* ii. *Text*, 104, 6.

Dalmatia. Smyrna. Syria.

a, *b*. Turkey. From M. Becker's collection.

Group 2.

Mas. Corpus robustum. Palpi validi, pilosi, obtusi, caput vix superantes. Antennæ thoracis longitudine, late pectinatæ, dimidio apicali mediocriter pectinatæ. Abdomen alas posticas plus minusve superans. Alæ mediocriter latæ; anticæ vix acuminatæ, apud costam subrectæ, margine exteriore recto mediocriter obliquo. *Fœm.*—Corpus crassum. Palpi validi, pilosi, caput vix superantes. Antennæ subpectinatæ, thorace non longiores. Abdomen alas posticas paullo superans. Alæ longiusculæ, vix latæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriore perobliquo vix convexo.

Male. Body stout. Palpi stout, pilose, obtuse, hardly extending beyond the head. Antennæ deeply pectinated to almost half the length, moderately pectinated along the rest of the length, about as long as the thorax. Abdomen extending for one-fourth or one-third of its length beyond the hind wings. Wings moderately broad. Fore wings hardly acuminated, almost straight along the costa, straight and moderately oblique along the exterior border; first and second inferior veins contiguous at the base; third moderately remote from the second and from the fourth. *Female.*—Body thick. Palpi stout, pilose, hardly extending beyond the head;

third joint minute, conical. Antennæ very minutely pectinated, nearly as long as the thorax. Abdomen extending a little beyond the hind wings. Wings rather long, hardly broad. Fore wings nearly straight in front, slightly rounded at the tips, hardly convex and very oblique along the exterior border; first and second inferior veins contiguous; third nearer to the second than to the fourth.

2. Pachypasa? Pithyocampa.

Mas. *Cervina; antennæ testaceæ, ramis fulvæ; thorax nonnunquam cinerascens aut canescens; alæ anticæ fasciis duabus angustis perobliquis subangulosis fusco marginatis maculisque nonnullis exterioribus fuscis.* Fœm.—*Cano cinerascens; antennæ abdomen et pedes testacea; tarsorum articuli fusci, apice testacei; alæ anticæ plaga magna antica basali fascia perobliqua maculisque exterioribus cervinis aut fuscis; posticæ cervinæ, margine pallidiore cinerascente.*

Phalæna-Bombyx Pithyocampa, *Cram. Pap. Exot.* iv. 29, pl. 304, f. E. F.

Phalæna-Bombyx capensis? *Linn. Syst. Nat.* 313, 20. *Frisch. Ins.* 10, pl. 10.

Bombyx capensis, *Oliv. Enc. Méth.* v. 40, 62.

Eutricha justa Pityocampa, *Hübn. Samml. Exot. Schmett.* i. *Lep.* iii. *Bomb.* ii. *Veræ*, x. *Eutrichæ*, B. *Justæ*, a. f. 1—4.

Lasiocampa Capensis, *Hübn. Verz. Schmett.* 189, 1945.

Male. Fawn-colour. Antennæ testaceous, with tawny branches. Fore wings a little paler than the hind wings, with two narrow very oblique slightly zigzag brown-bordered bands, and with a few exterior brown marks. Hind wings paler along the borders. Wings more reddish beneath. Length of the body 11—12 lines; of the wings 24—26 lines.

Var. β. Thorax somewhat cinereous. Fore wings slightly cinereous along part of the costa and of the interior border.

Var. γ. Bands of the fore wings more testaceous. Hind wings not darker than the fore wings.

Var. δ. Thorax somewhat hoary.

Var. ε. Fore wings with a reddish tinge.

Var. ζ. Fore wings with numerous blackish hairs; bands with blackish borders.

Female. Pale cinereous. Antennæ pale testaceous, with tawny branches. Abdomen testaceous. Legs testaceous, with some

brown hairs; joints of the tarsi brown, with testaceous tips. Fore wings with two fawn-coloured bands; the basal one incomplete, the other very oblique, partly bordered with brown, and with some brown spots between it and the exterior border. Hind wings fawn-colour, with pale cinereous borders. Length of the body 13—15 lines; of the wings 34—38 lines.

Var. β. Bands of the fore wings brownish. Hind wings with a pale cinereous band.

a—c. South Africa. Presented by Dr. A. Smith.
d—f. South Africa. From Mr. Pamplin's collection.
g—k. Cape. From Mr. Milne's collection.
l, m. Cape.

Group 3.

Fœm. Corpus crassum. Palpi pilosi, sat validi, caput paullo superantes; articulus 3us longiconicus. Antennæ subpectinatæ. Abdomen alas posticas paullo superans. Alæ *longæ*, *mediocriter* latæ; anticæ subacuminatæ, apud costam vix convexæ, margine exteriore subrecto perobliquo.

Female. Body thick. Palpi pilose, moderately stout, extending a little beyond the head; third joint elongate-conical. Antennæ very minutely pectinated. Abdomen extending for one-fourth of its length beyond the hind wings. Wings long, moderately broad. Fore wings slightly acuminated, very slightly convex in front, nearly straight and extremely oblique along the exterior border; second inferior vein about four times further from the third than from the first; fourth remote from the third.

3. Pachypasa? bilinea.

Fœm. *Cervina, ex parte albido-cervina; caput subtus, palpi, abdomen subtus pedesque ferruginea; antennæ testaceæ; abdomen luteum; tarsi testaceo fasciati; alæ anticæ fasciis duabus angustis obliquis subrectis fuscis; posticæ testaceæ.*

Female. Fawn-colour, tinged with white. Head on each side and beneath, palpi, abdomen beneath and legs ferruginous. Antennæ testaceous. Abdomen luteous. Tarsi with testaceous bands. Fore wings generally without a white tinge in front and along the exterior border; two slender oblique nearly straight brown bands, which are parallel hindward and diverge slightly towards the costa.

Hind wings testaceous, as is also the under side of the fore wings. Length of the body 18 lines; of the wings 46 lines,

a. ———? Presented by E. Doubleday, Esq.

Group 4.

Fœm. Corpus crassum. Palpi validi, breves, pilosi, caput non superantes. Antennæ subpectinatæ, thorace multo breviores. Abdomen alas posticas non superans. Alæ longissimæ, mediocriter latæ; anticæ acuminatæ, apud costam subrectæ, margine exteriore recto perobliquo.

Female. Body thick. Palpi stout, short, pilose, not extending beyond the head. Antennæ minutely pectinated, much shorter than the thorax. Abdomen extending as far as the hind wings. Wings very long, moderately broad. Fore wings acuminated, straight in front, somewhat rounded towards the tip of the costa, straight and very oblique along the exterior border; first and second inferior veins united to a long petiole beyond the end of the discal areolet; third remote from the second and from the fourth.

4. PACHYPASA? SUBFASCIA.

Fœm. *Cervina; caput subtus, palpi, pectus, abdomen subtus et pedes ferruginea; antennæ testaceæ, ramis nigricantibus; thorax carina dorsali fulva; abdomen apice fulvum; tarsi fulvo fasciati; alæ anticæ fascia gracillima perobliqua nigricante fasciisque basim versus nonnullis pallidioribus subobliquis plagaque fusca apud marginem exteriorem medium; posticæ fascia lata submarginali fusca.*

Female. Fawn-colour. Head beneath, palpi, pectus, abdomen beneath and legs ferruginous. Antennæ testaceous, with blackish branches. Thorax with a tawny dorsal ridge. Abdomen tawny at the tip. Tarsi with tawny bands. Fore wings with a very oblique and slender blackish band, which extends from four-fifths of the length of the costa to one-third of the length of the interior border, and with some paler less oblique bands nearer the base; a large brown patch on the middle of the exterior border. Hind wings with a broad brown band along the exterior border. Length of the body 20 lines; of the wings 56 lines.

a. Ashanti. From the Wesleyan Missionary Society's collection.

Genus 12. TITYA.

Fœm. Corpus valde robustum, dense pilosum. Proboscis obsoleta. Palpi porrecti, brevissimi, sat graciles. Antennæ subpectinatæ, thorace multo breviores. Abdomen alas posticas paullo superans. Pedes validi, pilosi calcaribus duobus minutis apicalibus. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Female. Body thickly pilose, very stout. Proboscis obsolete. Palpi porrect, rather slender, very short, not extending so far as the head. Antennæ very minutely pectinated, much shorter than the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings moderately broad. Fore wings straight along the costa till near the tips, where they are very slightly convex, abruptly rounded at the tips, oblique along the exterior border, the latter forming a curve and no angle with the interior border; second inferior vein much nearer to the first than to the third; third much nearer to the second than to the fourth, which springs from near the base of the wing.

1. TITYA NOCTILUX.

Fœm. *Nigro-cinerea; alæ anticæ supra argenteo-albæ, marginibus angustis, fascia obliqua venisque exterioribus nigro-cinereis.*

Female. Blackish gray. Fore wings above clear silvery white, with narrow blackish gray borders, and with a blackish gray band, which extends from near the tip of the costa to the middle of the interior border; veins beyond the band blackish gray. Length of the body 12 lines; of the wings 30 lines.

Rio Janeiro. In Mr. Fry's collection.

Genus 13. LASIOCAMPA.

Corpus robustum aut crassum. Palpi breves, crassi, pilosi, caput non superantes; articulus 3us parvus. Antennæ thorace longiores. Abdomen alas posticas non aut paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ; anticæ apud costam rectæ aut vix convexæ, apice subrotundatæ, margine exteriore parum obliquo. *Mas.*—Antennæ

latissime pectinatæ. Abdomen robustum. *Fœm.*—Antennæ serratæ. Abdomen crassum.

Lasiocampa, p., *Schr.*
Lasiocampa, *Steph. Ill. Brit. Ent. Haust.* ii. 38. *Curt.*
Phalæna-Bombyx, p., *Linn.; Gmel.; Stew.; Turt.*
Phalæna, p., *Berk.; Wilkes.*
Bombyx, p., *Fabr.; Oliv.; Scop.; Schr.; Oliv.; Donov.; Hübn.; Haw.; Boisd., &c.*
Gastropacha, p., *Ochs.; Herr.-Schæff.*
Metanastria, Pachygastria, Malacosoma, Periphoba et Mesoscelis, *Hübn. Verz. Schmett.* 186, 187, 191, 192.

Body robust or thick. Palpi short, stout, pilose, not extending beyond the head; third joint small. Antennæ rather longer than the thorax. Abdomen not or hardly extending beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings broad. Fore wings straight or very slightly convex along the costa, slightly rounded at the tips, slightly oblique along the exterior border; first and second inferior veins contiguous at the base; third very remote from the second and from the fourth. *Male.*—Antennæ very deeply pectinated. Abdomen hardly thick. *Female.*—Antennæ serrated. Abdomen thick.

Europe.

Group 1.

A. Magnæ.

A. Mas.—Ferrugineus. *Fœm.*—Cervina; alæ anticæ strigis duabus transversis pallidis. - - - Rubi, *Linn.*

B. Mas.—Fuscus. *Fœm.*—Lutea; alæ omnes striga flava, anticæ puncto medio albo.

a. Striga pallida limbum versus diluta, ab hoc remotior. Quercus, *Linn.*

b. Striga pallida angustior, limbo propior. Quercus, *Linn. Var.* Spartii, *Hübn.*

C. Sordide ochracea; *mas* magis stramineus; *fœm.* magis lateritia; alæ anticæ *maris* apice valde obtusæ, posticæ *fœminæ* innotatæ. - - - - Terreni, *Friv.*

D. Sordide ochracea (*mas* obscurior); striga alarum omnium pallidior pone medium, limbo parallela. - Cocles, *Hübn.*

E. Ferruginea; alæ anticæ puncto medio et striga pone medium pallidioribus; *mas* magis lutescens; *fœm.* magis fuscescens. - - - - - Trifolii, *Wien. Verz.*

F. Ochracea; alæ posticæ obscuriores; anticæ ciliis, striga sinuata pone medium et annulo medio fuscis. Eversmanni, *Kind.*

B. Parvæ. *Mas* ferrugineus; *fœm.* subcinerea; alæ anticæ puncto medio strigaque postica sinuata albis. - Loti, *Ochs.*

1. Lasiocampa Rubi.

Alæ cervinæ immaculatæ, anticæ strigis duabus albidis.

Lasiocampa Rubi, *Schr. Faun. Boic.* ii. 2, 154, 7. *Steph. Ill. Brit. Ent. Haust.* ii. 39, 1.

Phalæna-Bombyx Rubi, *Linn. Syst. Nat.* ii. 813, 21; *Faun. Suec.* 292, 1103. *Gmel. ed. Syst. Nat.* i. 5, 2409, 21. *Don. Nat. Hist. Brit. Ins.* ii. 87, pl. 69. *Stew. El. Nat. Hist.* ii. 145. *Turt. Syst. Nat.* iii. 203.

Bombyx Trifolii, *Schæff. Icon. Nomencl. Panz.* 159.

——— ———, *Albin, Nat. Hist. Engl. Ins.* pl. 81, a—d. *Roës. Ins.* iii. 283, pl. 49. *Ammir. Ins.* pl. 32. *Schæff. Icon.* pl. 178, f. 3—6. *Sepp. Ins.* ii. pl. 7—9. *Pap. d'Eur.* v. 5, pl. 173, f. 224.

Phalæna Rubi, *Berk. Syn.* i. 133.

Bombyx Rubus, *Haw. Lep. Brit.* 83.

Bombyx Rubi, *Fabr. Sp. Ins.* ii. 178, 51; *Mant. Ins.* ii. 113, 49; *Ent. Syst.* iii. 1, 427, 65. *Wien. Verz.* 56, 2. *Scop. Ent. Carn.* 197, 492. *Müll. Faun. Fridr.* 39, 351; *Zool. Dan.* 117, 1350. *Schr. Faun. Boic.* ii. 1, 274, 1458. *Oliv. Enc. Méth.* v. 47, 80. *Hübn. Bomb.* 144, 4, pl. 39, f. 174; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, P. b. f. 1, a—d. *Illig. N. Ausg. dess.* i. 108, 2. *Wilkes, Nat. Hist.* pl. 54. *Donov. Nat. Hist.* ii. pl. 68. *Esp. Schmett.* iii. 69, pl. 9, f. 1—6. *Bonkh. Eur. Schmett.* iii. 99, 27; *Rhein. Mag.* i. 364, 218. *Fuessl. Schweiz. Ins.* 34, 638; *A. Mag.* i. 2, 269; *N. Mag.* ii. 72, 21; iii. 2, 145, 25; 157, 123. *Vieweg, Tab. Verz.* i. 34, 10. *Rossi, Faun. Etr.* ii. 169, 1075; *ed. Illig.* 271, 1075. *Lang. Verz.* ii. 101, 782—784. *Brahm, Ins. Kal.* 197, 101; *Schwarz, Raup.* 96, 372, 758. *God. Lép. de France*, iv. 134, pl. 13, f. 1, 2. *Boisd. Gen. et Ind. Méth.* 71, 579.

Gastropacha Rubi, *Ochs. Schmett. von Eur.* iii. 270, 12. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 106, 18.

Metanastria Rubi, *Hübn. Verz. Schmett.* 186, 1915.

a—m. England. From Mr. Stephens' collection.
n, o. England. From Mr. Foxcroft's collection.
p—r. England.
s—u. Europe. From M. Becker's collection.
v, w. Europe.

2. Lasiocampa Quercus.

Alæ maris saturate fuscæ, fœminæ luteo-fuscæ, fascia interne arcuata flava pone medium; anticæ puncto medio albo, lituraque flava ad basin.

Lasiocampa Quercus, *Schr. Faun. Boic.* ii. 154. *Steph. Ill. Brit. Ent. Haust.* ii. 40, 4.

Phalæna-Bombyx Quercus, *Linn. Syst. Nat.* ii. 814, 25; *Faun. Suec. ed.* 2, 293, 1106. *Gmel. ed. Syst. Nat.* i. 5, 2411, 25.

——— ———, *Petiv. Gazoph.* pl. 45, f. 5. *Uddm. Diss.* 59. *Göed. Ins.* i. pl. 7. *Mouff. Theatr.* 92, fig. *Superiores. Rai, Ins.* 142, 2. *List. Göed.* (Angl.), 85, f. 88; (Lat.), 203, f. 88. *Albin. Nat. Hist. Engl. Ins.* pl. 18, f. 25. *Harr. Aur.* pl. 29, f. a—f. *Reaum. Ins.* i. pl. 35. *Merian, Ins. Eur.* i. pl. 10. *Roës. Ins.* i. 2, pl. 35. *Poda, Ins.* 85, 6. *Geoffr. Ins. Par.* ii. 111, 13. *Ammir. Ins.* pl. 31. *Schæff. Icon.* pl. 87, f. 1—3. *Pap. d'Eur.* v. 8, pl. 174, f. 225; pl. 175, f. 225.

Phalæna Quercus, *Barbut, Gen.* pl. 10, f. 25. *Berk. Syn.* i. 133. *Stew. El. Nat. Hist.* ii. 146. *Turt. Syst. Nat.* iii. 201. *Scop. Ent. Carn.* 194, 487.

Bombyx Quercus, *Fabr. Sp. Ins.* ii. 175, 39; *Mant. Ins.* ii. 112, 47; *Ent. Syst.* iii. 423, 53. *Wien. Verz.* 57, 3. *Müll. Faun. Fridr.* 39, 353; *Zool. Dan.* 117, 1353. *Oliv. Enc. Méth.* v. 42, 68. *Hübn. Bomb.* 144, 3, pl. 39, f. 172; pl. 52, f. 225; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, P. a. f. 2, a—d. *Illig. N. Ausg. dess.* i. 109, 3. *Schæff. Icon. Nomencl. Panz.* 100. *Wilkes, Nat. Hist.* pl. 46. *Donov. Nat. Hist. Brit. Ins.* iii. 83, pl. 103, 104. *Esp. Schm.* iii. 81, pl. 13, f. 2—4; pl. 14, f. 1, 2. *Panz. Faun. Germ.* 66, pl. 21, 22. *Borkh. Eur. Schm.* iii. 84, 22; 464, 22; *Rhein. Mag.* i. 362, 215. *Fuessl. Schweiz. Ins.* 34, 642; *N. Mag.* ii. 59; iii. 2, 160, 168, 164, 201. *Schr. Faun. Boic.* ii. 1, 275, 1460, 1461. *Naturf.* viii. 102, 6; xiii. 230, 9. *Hufn. Tab. im Berl. Mag.* ii. 4, 398, 6. *Vieweg, Tab. Verz.* i. 33, 8. *Rossi, Faun. Etr.* ii. 168, 1074; *ed. Illig.* 270, 1074; *Mantiss.* ii. 17, 369. *Lang. Verz.* ii. 102, 785—788. *Brahm, Ins. Kal.* 80, 34; *Schwarz, Raup.* 74, 238, 644, 754. *Haw. Lep. Brit.* 81. *Zett. Ins. Lapp.* 925, 2. *Boisd. Gen. et Ind. Méth.* 71, 581. *God. Lép. de France*, iv. 95, pl. 9, f. 1, 2.

Pachygastria Quercus, *Hübn. Verz. Schmett.* 186, 1914.
Gastropacha Quercus, *Ochs. Schm. von Eur.* iii. 266, 11. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 106, 19. *Freyer, Neue Lep. Beitr.* ii. 86, 250, pl. 146, f. 1.

Var. *Alæ* maris *fuscæ*, fœminæ *luteæ, fascia subarcuata pone medium; anticæ puncto subrotundato albo.*

Lasiocampa Roboris, *Schr. Faun. Boic.* ii. 154. *Steph. Ill. Brit. Ent. Haust.* ii. 41, 5.

Var. *Alæ striga flava angustiore, ad limbum propiore; anticæ puncto medio albo.* Mas.—*Fusca.* Fœm.—*Lutea.*

Gastropacha Spartii, *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 106, 20. *Freyer, Neue Lep. Beitr.* i. 48, 45, 177, pl. 26.

Var. Bombyx Spartii, *Hübn. Bomb.* pl. 39, f. 173 (mas); pl. 52, f. 224 (fœm.) *Duponch. Suppl. Lép. France*, iii. 92, pl. 8, f. 1. *Boisd. Gen. et Ind. Méth.* 71, 580.

Pachygastria Spartii, *Hübn. Verz. Schmett.* 186, 1913.

Var. Lasiocampa Callunæ, *Shirley Palmar, Zoologist*, v. 1056.

"The antennæ of the male are more closely and delicately pectinated than in *L. Quercus*; they consist of eighty-four pieces, not concealed by fine hairs, and measure full half an inch in length. The antennæ of the female are also stronger and longer than those of *L. Quercus*. The size of *L. Callunæ* is larger, and the prevailing colours deeper, than in *L. Quercus*, and a rich glossy hue, not seen in that insect, is exhibited in the wings of both sexes."

a—y. England. From Mr. Stephens' collection.
z—dd. England.
ee—hh. Europe. From M. Becker's collection.
ii. Europe. Presented by J. G. Children, Esq.
jj. North Europe. Presented by B. Clark, Esq.
kk. Sicily. (*Var.* Spartii). From Mr. Melly's collection.
ll—nn. France.

3. Lasiocampa Terreni.

Sordide ochracea. Mas.—*Magis straminea; alæ anticæ apice valde obtusæ.* Fœm.—*Magis lateritia; alæ posticæ innotatæ.*

Gastropacha Terreni, *Frivaldsky, Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 107, 21.

Constantinople.

Male. Pale straw-colour. Antennæ whitish, branches tawny. Wings with a narrow oblique tawny band, which in the fore wings is slightly undulating, and at half the distance between the tawny discal ringlet and the exterior border; ciliæ tawny.

a, *b*. Europe. From M. Becker's collection.

4. Lasiocampa Cocles.

Sordide ochracea; alæ striga pallidiore pone medium, limbo parallela. Mas.—*Obscurior.*

Bombyx Cocles, *Hübn. Treits. Boisd. Gen. et Ind. Méth.* 71, 583. *Duponch. Suppl. Lep. France*, iii. 89, pl. 7, f. 2.

Gastropacha Cocles, *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 107, 22. *Freyer, Neue Lep. Beitr.* i. 83, 77; 179, pl. 44.

Lasiocampa Trifolii, *var.?*

Sicily.

5. Lasiocampa Trifolii.

Alæ cinereo-ferrugineæ; anticæ puncto albo lineolaque repanda livida; posticæ immaculatæ.

Lasiocampa Trifolii, *Schr. Faun. Boic.* ii. 2, 154, 10. *Steph. Ill. Brit. Ent. Haust.* ii. 39, 2.

Phalæna-Bombyx Trifolii, *Gmel. ed. Syst. Nat.* i. 5, 2411, 496. *De Vill. Ent. Linn.* ii. 136. *Lewin, Linn. Trans.* iii. pl. 4, f. 1—4. *Turt. Syst. Nat.* iii. 200.

——— ———, *Roës. Ins.* i. 2, pl. 35. *Esp. Pap.* iii. pl. 15. *Pap. d'Eur.* v. 13, pl. 176, f. 226. *Sepp. Ins.* ii. 5, pl. 12, 14, f. 1—13.

Phalæna Dumeti, *Fuessly, Schweiz. Ins.* 34, 643; *A. Mag.* ii. 2, 209.

Phalæna Trifolii, *Wilkes*, 23, pl. 47, fig. *Sup.*

Bombyx Trifolius, *Haw. Lep. Brit.* 63.

Bombyx Trifolii, *Wien. Verz.* 57, 4. *Fabr. Mant. Ins.* ii. 112, 46; *Ent. Syst.* iii. 1, 423, 52. *Schr. Faun. Boic.* ii. 1, 276, 1462. *Rossi, Faun. Etr. Mantiss.* ii. 17, 368. *Oliv. Enc. Méth.* v. 41, 67. *Illig. N. Ausg. dess.* i. 110, 4. *Hübn. Bomb.* 143, 1, pl. 39, f. 171; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, P. a. f. 1, a, b. *Borkh. Eur. Schm.* iii. 89, 90, 23; *Rhein. Mag.* i. 363, 216. *Duponch. Supp. Lepp. France*, iii. 85, pl. 7, f. 1. *Fuessl. N. Mag.* iii. 2, 151, 80; 160, 164. *Naturf.* v. 73; viii. 102, 6. *Vieweg, Tab. Verz.* i. 33, 9. *Lang. Verz.* ii. 102, 789—792.

Schwarz, Raup. 91, 237. *Panz. Faun. Germ.* 19, 23. *God. Lép. de France*, iv. 99, pl. 9, f. 3—5.
Pachygastria Trifolii, *Hübn. Verz. Schmett.* 186, 1912.
Gastropacha Trifolii, *Ochs. Schmett. von Eur.* iii. 262, 9. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 107, 23.

Var. *Alæ luteo-cinereæ; anticæ puncto albo fasciisque duabus albidis; posticæ striga obliterata albida.*

Bombyx Medicaginis, *Borkh. Rhein. Mag.* i. 363, 217.
Bombyx Trifolii, *Borkh. Eur. Schmett.* iii. 88, 23. *Esp. Schm.* iii. 87, pl. 15, f. 1—6. *Fuessl. N. Mag.* iii. 2, 151, 80; 160, 164.
Bombyx Quercus, *Wilkes, Nat. Hist.* pl. 47.
Lasiocampa Medicaginis, *Steph. Ill. Brit. Ent. Haust.* ii. 40, 3.
——— ———, *Roës. Ins.* i. 2, pl. 35, a. f. 3, 4. *Pap. d'Eur.* v. 13, pl. 176, f. 226.
Pachygastria Medicaginis, *Hübn. Verz. Schmett.* 186, 1915.
Gastropacha Medicaginis, *Ochs. Schmett. von Eur.* iii. 264, 10.

a—e. England. From Mr. Stephens' collection.
f—h. England.
i, j. Europe. From M. Becker's collection.
k—q. Europe.

6. Lasiocampa Eversmanni.

Ochracea; alæ posticæ obscuriores; anticæ ciliis, striga sinuata pone medium et annulo medio fuscis.

Gastropacha Eversmanni, *Kinderm. Suppl.* 73, 74. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 108, 24.

Ural Region.

7. Lasiocampa Loti.

Alæ anticæ puncto medio strigaque postica sinuata albis. Mas.—*Ferruginea.* Fœm.—*Cinerea.*

Gastropacha Loti, *Ochs. Schmett. von Eur.* iii. 291, 22. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 108, 25.
Malacosoma Loti, *Hübn. Verz. Schmett.* 192, 1972.
Bombyx Loti, *Boisd. Icon.* 156. *Duponch. Suppl. Lép. France*, iii. 92, pl. 8, f. 2.

a—d. Spain. From M. Becker's collection.

Group 2.

Corpus robustum. Alæ vix latæ, parce vestitæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore sat obliquo. *Fœm.*—Antennæ pectinatæ.

Periphoba, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Lachneides Vulgares*), 187.

Lemonia, *Hübn. Verz. Schmett.* 187.

Body robust, not thick. Hind tibiæ with two small spurs. Wings hardly broad, thinly clothed. Fore wings straight in front, slightly rounded at the tips, rather oblique along the exterior border; second inferior vein full thrice further from the third than from the first. *Female.*—Antennæ slightly pectinated.

A. Pallide flava; alæ anticæ puncto medio nigro. Taraxaci, *Fabr.*

B. Ochraceo-fusca, limbo strigaque pone punctum medium luteis. Dumeti, *Linn.*

C. *Mas.*—Cinereo-ochraceus. *Fœm.*—Fusco-cinerea, striga pone medium pallida et alarum anticarum macula media magna subcordata fusca, pallide cincta. - - Balcanica, *Eriv.*

8. Lasiocampa Taraxaci.

Pallide flava; alæ anticæ puncto medio nigro.

Phalæna-Bombyx Taraxaconis, *Gmel. ed. Syst. Nat.* i. 5, 2415, 502.

Bombyx Taraxaci, *Fabr. Mant. Ins.* ii. 115, 73; *Ent. Syst.* iii. 1, 433, 83. *Fuessl. Arch. Ins.* vi. 19, pl. 34, f. 1—5; *N. Mag.* ii. 376. *Wien. Verz.* 57, 7. *Oliv. Enc. Méth.* v. 46, 87. *Illig. N. Ausg. dess.* i. 118, 7. *Panz. Faun. Germ.* 19, 22. *Borkh. Eur. Schmett.* iii. 95, 25. *Esp. Schmett.* iii. 68, pl. 8, f. 6, 7. *Hübn. Bomb.* 142, 2, pl. 37, f. 165, 166. *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, N. b. f. 2. *Brahm, Ins. Kal.* 483, 345. *Schwarz, Raup.* 94, 237. *Boisd. Gen. et Ind. Méth.* 70, 578. *God. Lép. de France*, iv. 106, pl. 10, f. 2. 3.

Lemonia Taraxaci, *Hübn. Verz. Schmett.* 187, 1930.

Lasiocampa Taraxaci, *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 109, 30, 1.

——— ———, *Pap. d'Eur.* v. 18, pl. 177, f. 228; *Suppl.* pl. 7, f. 228.

Gastropacha Taraxaci, *Ochs. Schmett. von Eur.* iii. 272, 13.

a, *b*. Europe. From M. Becker's collection.

9. Lasiocampa Dumeti.

Alæ fuscescentes; anticæ puncto, fascia margineque postico luteis.

Lasiocampa Dumeti, *Schr. Faun. Boic.* ii. 154, 11. *Steph. Ill. Brit. Ent. Haust.* ii. 41, 6. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 109, 31, 2.

Phalæna-Bombyx Dumeti, *Linn. Syst. Nat.* ii. 815, 26; *Faun. Suec.* ed. 2, 293, 1107. *Turt. Syst. Nat.* iii. 202. *Stew. El. Nat. Hist.* ii. 146. *Gmel. ed. Syst. Nat.* i. 5, 2412, 26.

Phalæna Taraxaci, *Hufnagel, Tab. im Berl. Mag.* ii. 4, 416, 31, 436.

Bombyx Dumeti, *Fabr. Sp. Ins.* ii. 177, 49; *Mant. Ins.* ii. 113, 57; *Ent. Syst.* iii. 1, 427, 63. *Wien. Verz.* 57, 5. *Schr. Faun. Boic.* ii. 1, 274, 1459. *Oliv. Enc. Méth.* v. 46, 86. *Illig. N. Ausy. dess.* i. 111, 5. *Hübn. Bomb.* 141, 1, pl. 37, f. 164; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, N. b. f. 1, a. *Sulz. Gesch. Ins.* ii. 159, pl. 21, f. 3. *Esp. Schmett.* iii. 85, pl. 14, f. 3, 4; 5, pl. 180. *Cont. Bomb.* i. f. 4—6. *Fuessl. Arch. Ins.* vi. 23, pl. 35, f. 1—7; *Schweiz. Ins.* 34, 643; *A. Mag.* i. 2, 212; *N. Mag.* ii. 376. *Knoch, Beitr.* iii. 35, 5, pl. 2, f. 1—4. *Kühn, Naturf.* vi. 75, 3, pl. 3, f. 1—4; x. 93. *Panz. Faun. Germ.* 19, 24. *Borkh. Eur. Schmett.* iii. 91, 24; 464, 24; *Rhein. Mag.* i. 365, 220. *Vieweg, Tab. Verz.* i. 34, 11. *Lang. Verz.* ii. 102, 793, 794. *Schwarz, Raup.* 75, 211. *God. Lép. de France*, iv. 103, pl. 10, f. 1. *Boisd. Gen. et Ind. Meth.* 70, 577.

Periphoba Dumeti, *Hübn. Verz. Schmett.* 187, 1929.

Gastropacha Dumeti, *Ochs. Schmett. von Eur.* iii. 273, 14. *Daniel, Ent. Zeit. Stett.* iv. 110.

——— ———, *Petiv. Gazoph.* pl. 45, f. 13. *Pap. d'Eur.* v. 15, pl. 177, f. 227, a—g.

a. Europe. Presented by the Entomological Club.
b, *c*. Europe. From M. Becker's collection.
d, *e*. Europe. From Dr. Leach's collection.

10. Lasiocampa Balcanica.

Mas.—*Cinereo-ochraceus.* Fœm.—*Fusco-cinerea, striga pone medium pallida et alarum anticarum macula media magna subcordata fusca, pallide cincta.*

Lasiocampa Balcanica, *Frivaldsky, Suppl.* 26—28. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 109, 32, 3.

Balkan.

West Indies.

Group 1.

Mas. Corpus sat robustum. Palpi brevissimi. Antennæ late pectinatæ, thorace paullo longiores. Pedes validi, dense pilosi. Alæ latæ, non longæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriore recto mediocriter obliquo; posticæ abdomen paullo superantes.

Male. Body rather stout. Palpi very short, not extending so far as the head. Antennæ deeply pectinated, a little longer than the thorax; branches simple, slender, ciliated, of equal length. Abdomen extending to three-fourths of the breadth of the hind wings. Legs stout, thickly pilose. Wings broad, not long. Fore wings almost straight in front, slightly rounded at the tips, straight and moderately oblique along the exterior border; second inferior vein a little more than twice further from the third than from the first.

11. Lasiocampa plana.

Mas. *Rufo-cervina; antennæ testaceæ; alæ fascia exteriore angusta obliqua fuscescente.*

Male. Reddish fawn-colour. Antennæ testaceous. Wings with an exterior slender oblique brownish band, extending from three-fourths of the length of the costa of the fore wings to three-fourths of the length of the interior border of the hind wings. Length of the body 10 lines; of the wings 32 lines.

a. St. Domingo. From Mr. Stevens' collection.

South America.

A. Alæ strigis tribus fuscis. - - - dedecora, *Feisth.*
B. Alæ fascia una marginali fusca. - - Hyrtaca, *Cram.*
C. Alæ fasciis quatuor testaceis.. - - - hirta, *Cram.*

12. Lasiocampa? Hyrtaca.

Cervina; alæ anticæ basi subobscuriores, fascia lata marginali fusca maculaque transversa discali nigra testaceo signata.

Phalæna Hyrtaca, *Cram. Pap. Exot.* iii. 97, pl. 249, f. F.
Bombyx Hyrtaca, *Oliv. Enc. Méth.* v. 53, 103.
Bombyx Lusca? *Fabr. Mant. Bomb.* 49.
Bombyx Laricis, *Hübn. Beytr.* ii. 2, O; 3, M.
Metanastria Hyrtaca, *Hübn. Verz. Schmett.* 186, 1916.

Surinam.

13. LASIOCAMPA? HIRTA.

Cervina; alæ anticæ fuscescentes, fasciis quatuor obliquis subtestaceis guttisque duabus discalibus nigris.

Phalæna-Bombyx hirta, *Cram. Pap. Exot.* iv. 131, pl. 358, f. A.
Lasiocampa hirta, *Hübn. Verz. Schmett.* 189, 1948.

Surinam.

14. LASIOCAMPA? DEDECORA.

Alæ anticæ fusco-cinereæ, apice pallidiores, strigis tribus undulatis fuscis punctoque discali nigro; posticæ cinereo-fuscæ, fascia una interiore albida alteraque exteriore fusca.

Bombyx dedecora, *Feisth. Voy. de la Favorite*, v. *Suppl.* 25, pl. 7, f. 2; *Mag. de Zool.* 2me *Sér.* clix. pl. 23, f. 2. *Blanch. Gay, Hist. de Chile, Zool.* vii. 64, 1. *Atlas, Zool. Ent. Lep.* pl. 6, f. 2.

Conception, Chili.

Africa.

The following species does not agree with the characters of *Lasiocampa* in the Synopsis (page 1387), but appears to be nearer allied to it than to any other well-established genus.

15. LASIOCAMPA? MONTANA.

Mas. *Ferruginea; alæ nigræ, basi ferrugineæ, testaceo marginatæ, macula cuique magna discali alba.*

Phalæna-Bombyx montana, *Cram. Pap. Exot.* iv. 127, pl. 356, f. E.
Bombyx montana, *Oliv. Enc. Méth.* v. 53, 104.
Mesoscelis monticola, *Hübn. Verz. Schmett.* 191, 1963.

Abdomen extending for more than one-third of its length beyond the hind wings.

Cape.

16. LASIOCAMPA PROMPTA.

Mas. *Testaceo-albida; antennæ albæ, ramis testaceis; alæ anticæ pallide cervinæ fasciis tribus angustis obliquis pallide fuscis guttaque oblonga discali alba.*

Male. Testaceous-white. Antennæ white, with testaceous branches. Fore wings pale fawn-colour, with an oblique oblong white discal dot, and with three slender oblique pale brown bands; first band extending from the discal dot to near the base of the interior border, more oblique than the second, which is contiguous to the discal dot and parallel to the third. Length of the body 5½ lines; of the wings 11 lines.

a. Gaffraria. From M. Becker's collection.

17. Lasiocampa Philopalus.

Alæ reversæ; anticæ cinereo-fuscescentes, costa venisque albidis; posticæ albicantes; antennæ late pectinatæ rufescentes; thorax pilosissimus, cinereo-fuscescens; abdomen albido-rufescens.

Bombyx Philopalus, *Donzel, Ann. Soc. Ent. Fr.* xi. 198, pl. 8, f. 2.

Allied to *L. Dumeti.*

Constantine, Barbary.

Asia.

A. Alæ non cinereo variæ.
  A. Alæ non ferrugineo variæ.
    A. Alæ non albido vittatæ.
      a. Alæ flavæ. - - - - - lineosa, *Walk.*
      b. Alæ albido-cervinæ. - - - - remota, *Walk.*
      c. Alæ cervinæ. - - - - - trifascia, *Walk.*
    B. Alæ anticæ vitta subcostali albida. - vittata, *Walk.*
  B. Alæ ferrugineo variæ.
    A. Alæ anticæ macula atra. - - - - lusca, *Fabr.*
    B. Alæ anticæ macula nulla atra.
      a. Alæ strigatæ. - - - - flavicollis, *Guér.*
      b. Alæ non strigatæ.
        i. Alæ fascia nulla nigra. - - Adolphei, *Guér.*
        ii. Alæ fascia nigra. - - - - decisa, *Walk.*
B. Alæ cinereo variæ.
  A. Alæ albido fasciatæ. - - - - substrigosa, *Walk.*
  B. Alæ non albido fasciatæ. - - - - collaris, *Guér.*

Group 1.

Mas. Corpus robustum. Palpi validi, porrecti, pilosi, caput paullo superantes. Antennæ late et densissime pectinatæ, thorace longiores. Abdomen alas posticas paullo superans. Alæ sat latæ, apud costam rectæ, apice rotundatæ, margine exteriore subrecto mediocriter obliquo.

Male. Body stout. Palpi stout, porrect, very pilose, extending a little beyond the head. Antennæ longer than the thorax, deeply and very thickly pectinated, and consequently with very numerous joints. Abdomen extending for one-fourth of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings rather broad. Fore wings straight in front, rounded at the tips, nearly straight and moderately oblique along the exterior border.

18. LASIOCAMPA TRIFASCIA.

Mas. *Cervina; alæ subtus bifasciatæ, anticæ supra trifasciatæ.*

Male. Fawn-colour. Wings beneath with two darker bands, which have somewhat paler exterior borders. Fore wings with three paler oblique bands, whose exterior sides are somewhat darker. Length of the body 11 lines; of the wings 22 lines.

a. North Bengal. Presented by W. W. Saunders, Esq.

19. LASIOCAMPA REMOTA.

Fœm. *Albido-cervina; alæ anticæ fasciis tribus obliquis subundulosis vix distinctis pallide fulvis; posticæ vix fasciatæ.*

Female. Pale whitish fawn-colour. Head slightly prolonged. Palpi extending rather beyond the head. Antennæ white, minutely pectinated; branches fawn-colour. Fore wings with three indistinct oblique somewhat undulating pale tawny bands, the exterior one darker and more diffuse than the others; exterior border very oblique, hardly convex. Hind wings with hardly apparent bands. Length of the body 11—14 lines; of the wings 30—40 lines.

a. Shanghai, North China. From Mr. Stevens' collection.
b. ———?

Group 2.

Fæm. Corpus sat robustum. Palpi breves, caput non superantes. Antennæ subpectinatæ. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ amplæ; anticæ apud costam vix convexæ, apice subangulatæ, margine exteriore subrecto mediocriter obliquo; posticæ abdomen triente superantes.

Female. Body rather stout. Palpi short, not extending beyond the head. Antennæ very minutely pectinated. Abdomen extending to two-thirds of the breadth of the hind wings. Legs stout; hind tibiæ with two moderately long apical spurs. Wings rather long and broad. Fore wings hardly convex in front, slightly angular at the tips, nearly straight and moderately oblique along the exterior border; second inferior vein about four times further from the third than from the first.

20. Lasiocampa lineosa.

Fœm. *Flava; antennæ nigræ, subtus fulvæ; palpi et pedes nigro varii; alæ fasciis plurimis undulosis subobsoletis fuscescentibus, unaque exteriore recta obliqua bene determinata fusca.*

Female. Pale yellow. Antennæ black, tawny beneath. Palpi and legs partly clothed with black hairs. Wings with several undulating nearly obsolete pale brownish bands, and with one distinct oblique straight slender exterior brown band, which extends from near the tip of the costa of the fore wings to beyond two-thirds of the length of the interior border of the hind wings. Length of the body 10 lines; of the wings 34 lines.

a. Nepaul. Presented by Major-Gen. Hardwicke.

21. Lasiocampa vittata.

Mas et fœm. *Cervina; alæ anticæ fascia exteriore subobsoleta obscuriore vittaque angusta subcostali albida; posticæ pallidiores.* Mas.—*Obscurior.*

Male and female. Fawn-colour. Fore wings with an exterior nearly obsolete darker band, and with a whitish subcostal stripe, which extends from the base to three-fourths of the length. Hind wings a little paler than the fore wings. *Male.*—Darker than the

female; whitish stripe more distinct. Length of the body 6—8 lines; of the wings 16—20 lines.

a—e. North India. From Mr. Stevens' collection.

22. LASIOCAMPA SUBSTRIGOSA.

Mas. *Cano-fulva; thorax fascia arcuata fulva; alæ venis pallidioribus, ciliis cinerascentibus; anticæ fasciis quatuor angustis obliquis albidis ex parte fulvo marginatis; posticæ fasciis duabus albidis arcuatis discalibus.*

Male. Fawn-colour, with a slight hoary tinge. Palpi tawny, stout, pilose, contiguous, extending rather beyond the head, which has a slight rostriform appearance. Thorax with a tawny curved band. Wings with grayish ciliæ; veins slightly paler than the wings elsewhere. Fore wings slightly grayish along the costa, and with four oblique slender whitish bands; first, second and fourth bands bordered with tawny on the outer side; third bordered with tawny on the inner side; the wings between it and the second more slightly tawny. Hind wings with two indistinct whitish curved discal bands. Length of the body 7 lines; of the wings 18 lines.

a. North India. From Mr. Stevens' collection.

23. LASIOCAMPA DECISA.

Fœm. *Pallide ferruginea; abdomen cervinum; alæ anticæ fascia angusta obliqua nigricante maculaque transversa albida discali fusco signata et marginata; posticæ cervinæ.*

Female. Pale ferruginous; under side and abdomen pale fawn-colour. Fore wings with a slender straight blackish band, which extends from near the tip of the costa to somewhat beyond the middle of the interior border; a transverse whitish discal spot bordered with brown and including a brown streak. Hind wings pale fawn-colour, somewhat ferruginous along the costa. Length of the body 9 lines; of the wings 20 lines.

East Indies. In Mr. Saunders' collection.

24. LASIOCAMPA? LUSCA.

Alæ ferrugineæ; anticæ macula media atra, lunula nivea, striga exteriore punctorum fuscorum.

Bombyx lusca, *Fabr. Mant. Ins.* ii. 112, 49; *Ent. Syst.* iii. 1, 424, 55.
Phalæna-Bombyx lusca, *Gmel. ed. Syst. Nat.* i. 5, 2412, 498.
Bombyx lusca, *Oliv. Enc. Méth.* v. 42, 70.

This species does not agree with the characters of *L. Hyrtaca* to which Hübner refers it.

Coromandel.

The three following species do not quite agree with the characters of *Lasiocampa*.

25. Lasiocampa? flavicollis.

Mas. *Alæ anticæ fusco subferrugineæ, striga transversa lutea fusco marginata, basi strigis undatis obsoletis maculisque submarginalibus fuscis et cinereis prope apicem; posticæ pallide luteæ, striga transversa obsoleta maculisque duabus fuscis; caput et prothorax fusco-ferruginea; prothorax, abdomen et pedes flava.*

Bombyx flavicollis, *Guér. Voy. Delessert, Hist. Nat.* 94, pl. 27, f. 1.

Neelgherry Mountains.

26. Lasiocampa? collaris.

Alæ anticæ fusco subcinereoque variegatæ, dilute flavescentes, striga transversa ferruginea fusca marginata, basi strigis obsoletissimis lunulisque submarginalibus linea dentata formantibus, fuscis; posticæ flavo-fuscæ, margine interiore subferrugineo, striga transversa fusca; caput et thorax ferrugineo-fusca, prothorace pallide flavo; abdomen flavo subfuscum; pedes fusco-ferruginei.

Bombyx collaris, *Guér. Voy. Delessert. Hist. Nat.* 95, pl. 27, f. 2.

Neelgherry Mountains.

27. Lasiocampa? Adolphei.

Fœm. *Fusco-ferruginea; alæ anticæ costa apiceque obscurioribus; posticæ pallidiores.*

Bombyx Adolphei, *Guér. Voy. Delessert, Hist. Nat.* 96, pl. 27, f. 3.

Neelgherry Mountains.

Country unknown.

28. Lasiocampa innotata.

Mas. *Pallide cervina; corpus sat robustum; palpi caput superantes; antennæ sat late pectinatæ; alæ anticæ fasciis duabus aut tribus angustis indistinctis obliquis obscurioribus.*

Male. Pale fawn-colour. Body moderately stout. Palpi projecting rather beyond the head. Antennæ rather deeply pectinated. Fore wings with two or three narrow indistinct oblique darker bands. Length of the body 10 lines; of the wings 21 lines.

a. ——?

Species incertæ.

29. Lasiocampa? Brahma.

Alæ integræ, fœminæ, *utrinque fulvo-rufæ; anticæ ad basim puncto minuto albo, vittisque duabus cinereis, albido marginatis; margine exteriore punctis obscurioribus, puncto solitari cinereo; fimbria alba.*

Bombyx Brahma, *Lefebvre, Zool. Journ.* iii. 208.

Length of the wings 36 lines.

Madras.

30. Lasiocampa? Siva.

Alæ integræ, maris et fœminæ, *fusco-fulvæ, puncto solitari minuto obscuroque; linea alba, sinuata, transversa, maculis tribus albis, antica at basim, postica ad marginem externum, accentiformibus, 3o ad medium nitente; posticæ pallidiores, ad angulum ani paululum nigro signata.*

Bombyx Siva, *Lefebvre, Zool. Journ.* iii. 210.

Length of the wings 33 lines.

Madras.

31. LASIOCAMPA? BUDDHA.

Alæ integræ, maris, *subflexuosæ pallide rufo-fuscæ; anticæ macula fusco-rubea, arcu ad medium albo nitente margineque obscuriori.*

Bombyx Buddha, *Lefebvre, Zool. Journ.* iii. 209.

Length of the wings 18 lines.

Madras.

32. LASIOCAMPA? GANESA.

Alæ integræ, maris, *rufæ; anticæ, maculis duabus obscurioribus, antica quadrangulari paululum margine superiori, postica oblonga, ad medium arcu albo nitenti inscripta; fasciis albis valde sinuatis transverse signatis; posticæ utrinque albidæ, ad angulum ani, nigro signatæ; anus barbatissimus.*

Bombyx Ganesa, *Lefebvre, Zool. Journ.* iii. 211.

Length of the wings 18 lines.

Madras.

Genus 14. MALACOSOMA.

Corpus robustum, pilosum. Palpi breves, porrecti, pilosi, caput paullo superantes; articulus 3us minutus, conicus, acuminatus. Abdomen alas posticas triente superans. Pedes validi, pilosi. Alæ breviusculæ, sat angustæ, apice rotundatæ, margine exteriore perobliquo. *Mas.*—Antennæ late pectinatæ. Abdomen gracilius. *Fœm.*—Antennæ serratæ.

Bombyx, p., *Fabr.; Wien. Verz.; Oliv.; Hübn.; Esp.; God.; Boisd.; &c.*
Phalæna-Bombyx, p., *Gmel.*
Gastropacha, p., *Ochs.; Herr.-Schæff.*
Malacosoma, p., *Hübn. Verz. Schmett.* 192.

Body stout, pilose. Palpi short, porrect, pilose, extending a little beyond the head; second joint longer than the first; third minute, conical, acuminated. Abdomen extending for one-third of its length beyond the hind wings. Legs stout, pilose. Wings rather short and narrow. Fore wings straight along the costa, conical in outline towards the tips, very oblique along the exterior border; second inferior vein about thrice further from the third than

from the first; third about thrice further from the fourth than from the second. *Male.*—Antennæ deeply pectinated. Abdomen rather more slender and a little longer than that of the female. *Female.*—Antennæ serrated.

1. MALACOSOMA FRANCONICA.

Mas. *Cinereo-fusca; alæ fusco venosæ et marginatæ, striga pone medium pallida.* Fœm.—*Lateritio-fusca.*

Bombyx Franconica, *Wien. Verz.* 57, 6. *Fabr. Mant. Ins.* ii. 115, 72; *Ent. Syst.* iii. 1, 435, 82. *Oliv. Enc. Méth.* v. 54, 110. *Illig. N. Ausg. dess.* i. 117, 6. *Hübn. Bomb.* 145, 3, pl. 40, f. 175, 176. *Esp. Schmett.* iii. 139, pl. 26, f. 1, 2. *Borkh. Eur. Schmett.* iii. 112, 50. *Lang. Verz.* ii. 105, 813. *God. Lép. de France*, iv. 146, pl. 13, f. 7, 8. *Brahm, Ins. Kal.* 340, 225. *Boisd. Gen. et Ind. Méth.* 69, 565.

Phalæna-Bombyx Franconica, *Gmel. ed. Syst. Nat.* i. 5, 2415, 501.

Gastropacha Franconica, *Ochs. Schmett. von. Eur.* iii. 292, 23. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 106, 16.

Malacosoma Franconica, *Hübn. Verz. Schmett.* 192.

a—d. Europe. From M. Becker's collection.
e, f. Europe. From Mr. Milne's collection.

Genus 15. CATOCEPHALA.

Corpus validiusculum. Caput parvum. Proboscis fere nulla. Palpi breves, longe pilosi. Thorax rotundatus. Alæ integræ. *Mas.*—Antennæ mediocriter pectinatæ. *Fœm.*—Antennæ anguste pectinatæ.

Catocephala, *Blanch. Gay, Hist. Chile*, vii. 62.

1. CATOCEPHALA SOCIALIS.

Alæ cinereæ; anticæ strigis duabus maculaque obliqua albidis; posticæ immaculatæ, subtus cum anticis striga communi albâ.

Bombyx socialis, *Feisth. Voy. de la Favorite*, v. *Suppl.* 24, pl. 6, f. 1; *Mag. de Zool.* 2me *Sér.* pl. 22, f. 1, (1839).

Catocephala socialis, *Blanch. Gay, Hist. Chile*, vii. 63, 1.

Chili.

2. CATOCEPHALA RUFOSIGNATA.

Fusco-rufescens; abdomen fuscum, lateribus rufo fasciculatis; alæ ablongæ; anticæ apice pallidæ, macula media albida; posticæ cinereæ, apice fulvescentes, macula media minuta oblonga albida.

Catocephala rufosignata, *Blanch. Gay, Hist. Chile*, vii. 63, 2. *Atlas, Zool. Ent. Lep.* pl. 6, f. 1.

Conception.

Genus 16. MEGASOMA.

Corpus plus minusve crassum. Palpi porrecti, validi, pilosi, rostriformes, caput superantes; articulus 3us conicus. Antennæ subconvolutæ, thorace longiores aut paullo breviores. Abdomen alas posticas sæpissime superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ angustæ aut latiusculæ; anticæ apud costam rectæ aut vix convexæ, apice subrotundatæ aut subacuminatæ, margine exteriore plus minusve obliquo. *Mas.*—Antennæ late pectinatæ, apices versus mediocriter pectinatæ. Corpus robustum; sæpe elongatum. *Fœm.*—Antennæ mediocriter pectinatæ aut subpectinatæ. Abdomen crassum. Larva collaris, cylindrica, elongata, pilosula, dorso mediusculo, tuberculis minutis, pilosulis instructo, lateribus tuberculis pilosis longioribus. Folliculum fusiforme, laxum. Pupa pilis fasciculatis induta.

Megasoma, *Boisd.; Feisthamel, Ann. Soc. Ent. Fr.* i. 340; *Duponch.*
Phalæna-Bombyx, p., *Cram.*
Bombyx, p., *Hübn. Bomb.*
Streblote, p., *Hübn. Verz. Schmett.* 193.
Gastropacha, p., *Herr.-Schæff.*

Body more or less thick. Palpi porrect, stout, pilose, rostriform, extending rather beyond the head; third joint conical. Antennæ slightly convoluted, longer or a little shorter than the thorax. Abdomen generally extending beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings narrow, or rather broad. Fore wings straight or hardly convex along the costa, slightly acuminated or slightly rounded at the tips, more or less oblique along the exterior border; first and second inferior veins approximate; third generally much more remote from the fourth than from the second. *Male.*—Antennæ deeply pectinated,

generally moderately pectinated towards the tips. Abdomen robust, longer than that of the female. *Female.*—Antennæ moderately or slightly pectinated. Abdomen thick.

Group 1.

Corpus crassum. Palpi caput sat superantes. Antennæ thorace breviores. Abdomen alas posticas paullo superans. Alæ longiusculæ, sat angustæ; anticæ vix acuminatæ, apud costam rectæ, margine exteriore perobliquo subconvexo. *Mas.*—Antennæ mediocriter pectinatæ, basim versus late pectinatæ.

Body thick. Palpi extending some distance beyond the head. Antennæ shorter than the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Wings long, rather narrow. Fore wings hardly acuminated, straight in front, slightly convex and extremely oblique along the exterior border; second inferior vein full four times further from the third than from the first; third much further from the fourth than from the second. *Male.*—Antennæ deeply pectinated towards the base, moderately pectinated along the rest of the length.

1. Megasoma repandum.

Alæ fusco-ferrugineæ; anticæ lunula fusca sinuata punctoque humerali albis, maris disco humerisque obscurioribus.

Bombyx repandum, *Hübn. Bomb.* pl. 77.
Streblote panda, *Hübn. Verz. Schmett.* 193, 1980.
Megasoma repandum, *Feisthamel, Ann. Soc. Ent. Fr.* i. 344, pl. 13. *Duponch. Suppl. Lép. France*, iii. 101, pl. 9, f. 2.
Gastropacha repanda, *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 106, 17. *Freyer, Neue Lep. Beitr.* ii. 87, 251, pl. 146, f. 2.

South Spain. Bagdad.

a. Spain? From M. Becker's collection.

2. Megasoma Acaciæ.

Alæ anticæ albidæ, lunula centrali nigra, fascia transversa fusca linea sinuata argentea extra marginata, lineaque terminali ferruginea obsoleta; posticæ albæ, angulo anali nigro cincto.

Bombyx Acaciæ, *Klug, Symb. Ins. Lepid.* pl. 6.
Megasoma Acaciæ, *Feisthamel, Ann. Soc. Ent. Fr.* i. 347, 2.

Egypt.

a. Bagdad. Presented by W. K. Loftus, Esq.

3. Megasoma cristatum.

Mas. *Ferrugineum; thorax vittis duabus arcuatis albis; alæ anticæ strigis basalibus et costalibus fasciaque undulata exteriore perobliqua albis.*

Phalæna-Bombyx cristata, *Cram. Pap. Exot.* iv. 234, pl. 398, f. 1.

Megasoma cristatum, *Feisthamel, Ann. Soc. Ent. Fr.* i. 347, 3.

Cape.

4. Megasoma bifascia.

Fœm. *Cervinum; caput et thorax cinerea, hoc antice fulvum; alæ anticæ striga basali fusca fasciisque duabus perobliquis vix undulosis albidis, margine exteriore pallidiore; posticæ pallidiores.*

Female. Fawn-colour. Head and thorax cinereous. Head fawn-colour in front. Fore wings with a brown basal streak near the interior border, and with two very oblique hardly undulating whitish bands; first band nearly rectangular towards the costa; second diffuse on the outer side and also on the inner side by the costa, and accompanied along the inner side by a brownish band; exterior border and the whole of the hind wings pale fawn-colour. Length of the body 9 lines; of the wings 26 lines.

a. South Africa. From Mr. Pamplin's collection.

5. Megasoma basale.

Mas. *Cinerascens; antennæ nigricantes; thoracis latera postica ferruginea; abdomen obscure testaceum; pedes fulvescentes; alæ anticæ ferrugineæ, gutta interiore nigra, fasciis duabus extus albido marginatis guttisque exterioribus nigricantibus; posticæ cervinæ.*

Male. Cinereous. Antennæ blackish. Thorax with a large ferruginous spot on each side hindward. Abdomen dull testaceous. Legs somewhat tawny. Fore wings ferruginous, with a black discal dot near the base, with two slender blackish bands which have whitish outer borders, and with some blackish dots near the exterior border. Hind wings fawn-colour. Length of the body 9 lines; of the wings 18 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

6. MEGASOMA VENUSTUM.

Album; palpi subtus cervini: thorax maculis duabus trigonis lateralibus cervinis; abdomen cervino fasciatum; pedes nigricantes, tarsis albo fasciatis; alæ cervinæ, albo marginatæ et conspersæ; anticæ fasciis duabus subobsoletis albidis apud costam dilatatis; posticæ pallidiores, fascia diffusa albida.

Female. Body white. Palpi fawn-colour beneath. Antennæ with tawny branches. Thorax with a large fawn-coloured spot on each side. Abdomen with fawn-coloured bands. Legs mostly blackish; tarsi with white bands. Wings with white borders. Fore wings fawn-colour, sprinkled with white exteriorly, with two irregular white bands, which are united on the interior border, and are very indistinct, except towards the costa, where they are dilated into triangular spots. Hind wings paler fawn-colour, sprinkled with white, and with a diffuse whitish band. Length of the body 16 lines; of the wings 36 lines.

Var. *Alba; thoracis latera cervina; abdomen subtus subcervinum; alæ anticæ gutta discali obscuriore, fascia subobsoleta cinerea maculisque tribus albis; posticæ apices versus testaceæ, margine postico fusco.*

White. Palpi beneath and joints of the antennæ fawn-colour. Abdomen beneath and legs pale fawn colour. Thorax with a large fawn-coloured spot on each side. Fore wings fawn-colour, with a darker discal dot, and with three white spots; two of the spots costal and elongated, the third discal; the exterior costal spot, like the discal one, forming part of the gray band, which is undulating and very indistinct. Hind wings testaceous towards the tips; hind part of the exterior border brown. Length of the body 15 lines; of the wings 32 lines.

a. Punjaub. Presented by General Hearsay.
b. North India. Presented by W. W. Saunders, Esq.
c. Ceylon. Presented by R. Templeton, Esq.
d. Canara, Malabar Coast. Presented by S. N. Ward, Esq.
e, f. Philippine Islands. From Mr. Cuming's collection.

"The larva is of slate-colour, with a dark ring behind the head and another close to the tail; it feeds on *Zizyphus jujuba* (the tree), and on *Hyperanthus moringa*."—*General Hear.ay, MSS.*

7. Megasoma pallidum.

Mas. *Alba; palpi subtus cervini; antennæ pallide cervinæ; thorax maculis duabus lateralibus trigonis cervinis; pedes supra cervini; alæ anticæ cervinæ, macula basali striga costali fasciaque exteriore albis; posticæ apud apices subcervinæ, striga postica marginali fusca.*

Female. White. Palpi fawn-coloured beneath. Antennæ pale fawn-colour, moderately pectinated. Thorax with a large fawn-coloured triangular spot on each side. Legs fawn-colour above. Fore wings fawn-colour, darkest at the base, where there is a white spot; a white costal streak at beyond half the length of the wing, and a slender undulating oblique white band at half the distance between the streak and the tip of the wing; first and second inferior veins almost contiguous; third further from the fourth than from the second. Hind wings extending to two-thirds of the length of the abdomen, slightly tinged with fawn-colour at their tips, and with a brown streak on the exterior border adjoining the interior border. Length of the body 9—11 lines; of the wings 22—28 lines.

a—c. North India. From Mr. James' collection.

8. Megasoma albicans.

Mas. *Alba; caput apud oculos ferruginеum; palpi subtus ferruginei; antennæ ramis cervinis; thorax maculis duabus trigonis lateralibus cervinis; abdomen apice supra fuscum; alæ anticæ canæ, striga basali cervina e albo uniguttata, gutta discali fusca fasciisque duabus undulosis obliquis albis plagam anticam fuscam includentibus; posticæ striga marginali posteriore fusca.*

Male. White. Head ferruginous about the eyes. Palpi ferruginous beneath. Antennæ with fawn-coloured branches. Thorax with a very large fawn-coloured triangular spot on each side. Abdomen brown at the tip above. Fore wings hoary, with a fawn-coloured basal streak, which contains a white dot; a brown discal dot and two undulating oblique white bands; the latter on the fore-half of the wing include a large brown space, which is darkest hindward. Hind wings with a brown streak along the hind part of the exterior border. Length of the body 7—12 lines; of the wings 18—25 lines.

a. Punjaub. Presented by General Hearsay.
b. North India. From Mr. Stevens' collection.

Group 2.

Mas. Abdomen alas posticas triente superans. Alæ anticæ breviusculæ, apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo vix convexo.

Male. Abdomen extending for one-third of its length beyond the hind wings. Fore wings rather short, straight in front, rounded at the tips, hardly convex and rather oblique along the exterior border; second inferior vein remote from the first and a little further from it than from the third.

9. MEGASOMA TRUNCATUM.

Mas. *Canum, subtus fuscum; antennæ ramis fuscis; thorax apud alas anticas fuscus; abdomen supra cinereum; alæ anticæ fuscescentes vittis nigris, fascia marginali albida, ciliis apud venas albidis; posticæ cinerascentes.*

Male. Hoary, brown beneath. Antennæ whitish, with brown branches. Thorax with a large brown mark on each side. Abdomen cinereous above. Fore wings brownish, with three slender and slightly undulating and curved black stripes, and with a whitish band along the exterior border; ciliæ whitish opposite the veins. Hind wings pale cinereous. Length of the body 10 lines; of the wings 20 lines.

a. South Africa. Presented by Dr. A. Smith.

Group 3.

Mas. Corpus sat robustum. Palpi valde robusti, obtusi, pilosissimi, caput vix superantes. Antennæ thorace multo breviores, latissime pectinatæ, dimidio apicali mediocriter pectinatæ. Abdomen oblanceolatum, alas posticas triente superans. Alæ sat angustæ; anticæ subacuminatæ, apud costam subrectæ, margine exteriore sat obliquo vix convexo.

Male. Body rather stout. Palpi obtuse, very stout and pilose, extending very little beyond the head. Antennæ much shorter than the thorax, very deeply pectinated to half the length, moderately pectinated from thence to the tips. Abdomen oblanceolate, extending for full one-third of its length beyond the hind

wings. Wings rather narrow. Fore wings slightly acuminated, nearly straight in front, hardly convex and rather oblique along the exterior border; second inferior vein more than twice further from the first than from the third; third further from the fourth than from the second.

10. Megasoma obscurum.

Mas. *Ferrugineum; alæ anticæ fasciis nonnullis angustis obliquis angulosis subpallidioribus nigro marginatis.*

Male. Ferruginous. Fore wings with several slender oblique zigzag slightly paler blackish-bordered bands. Length of the body 14 lines; of the wings 28 lines.

a. ——— ?

Group 4.

Mas. Corpus mediocriter robustum. Palpi validi, porrecti, pilosi, obtusi, caput paullo superantes. Antennæ mediocriter pectinatæ, thorace breviores, basim versus late pectinatæ. Abdomen alas posticas dimidio superans. Alæ angustæ; anticæ subacuminatæ, apud costam subrectæ, margine exteriore vix convexo sat obliquo, interiore basi concavo. *Fœm.*—Palpi caput sat longe superantes. Antennæ subpectinatæ, basim versus mediocriter late pectinatæ. Abdomen alas posticas plus triente superans. Alæ anticæ apud costam subrectæ, margine exteriore perobliquo.

Male. Body moderately stout. Palpi stout, porrect, obtuse, extending a little beyond the head. Antennæ moderately pectinated, shorter than the thorax, rather deeply pectinated towards the base. Abdomen extending for about half its length beyond the hind wings. Wings narrow. Fore wings almost straight in front, slightly acuminated at the tips, very slightly convex and rather oblique along the exterior border; interior border concave at the base; second inferior vein about four times further from the third than from the first; fourth remote from the third. *Female.*—Palpi extending some distance beyond the head. Antennæ moderately deeply pectinated towards the base, slightly pectinated from thence to the tips. Abdomen extending for more than one-third of its length beyond the hind wings. Fore wings straight along the costa till near the tips, where they are slightly rounded.

11. MEGASOMA PARDALE.

Mas et fœm. *Cervinum; palpi cinerei; antennæ ramis nigricantibus; thorax vitta dorsali cinerea; alæ anticæ cinereo guttato-fasciatæ.* Mas.—*Abdomen et alæ posticæ apud marginem interiorem albido-testaceæ.*

Male and female. Fawn-colour. Palpi cinereous. Antennæ with blackish branches. Thorax with a slight cinereous tinge and with a narrow cinereous dorsal stripe. Fore wings with cinereous flecks, which form numerous imperfect slender undulating oblique bands. Hind wings paler and without bands towards the interior border. *Male.*—Paler than the female. Abdomen whitish testaceous. Hind wings whitish testaceous towards the interior border. Length of the body 8—14 lines; of the wings 16—28 lines.

a, *b*. Java. From the East India Company's collection.

Genus 17. LEBEDA.

Mas. Corpus robustum aut crassum. Proboscis non conspicua. Palpi validi, porrecti, pilosi, caput paullo superantes; articulus 3us conicus. Antennæ late pectinatæ, thorace vix breviores. Abdomen alas posticas dimidio superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subconvexo perobliquo. *Fœm.*—Antennæ mediocriter pectinatæ.

Male. Body robust or thick. Proboscis not visible. Palpi stout, porrect, pilose, extending a little beyond the head; third joint conical. Antennæ deeply pectinated, almost as long as the thorax. Abdomen extending for half its length beyond the hind wings. Legs stout; hind tibiæ with two very minute apical spurs. Wings narrow. Fore wings straight in front, rounded at the tips, very slightly convex and very oblique along the exterior border; second inferior vein more than four times further from the third than from the first, to which it is contiguous. *Female.*—Antennæ moderately pectinated.

Group 1.

Mas. Corpus robustum. Palpi breves, validi, pilosi, caput vix superantes. Antennæ latissime pectinatæ, thoracis longitudine.

Abdomen alas posticas paullo superans. Alæ latæ; anticæ vix angulatæ, apud costam subrectæ, margine exteriore recto mediocriter obliquo.

Male. Body stout. Palpi short, stout, pilose, hardly extending beyond the head. Antennæ very deeply pectinated, as long as the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Wings broad. Fore wings straight in front, slightly rounded towards the tip of the costa, hardly angular at the tips, straight and moderately oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third very remote from the second and from the fourth.

1. Lebeda contraria.

Mas. *Cervina; antennæ obscure ferrugineæ, ramis fulvis; abdomen fasciis apiceque testaceis; alæ fascia lata marginali subpallidiore.*

Male. Fawn-colour. Antennæ dark ferruginous, with tawny branches. Abdomen with testaceous bands; tip testaceous Wings with a broad slightly paler marginal band. Length of the body 18 lines; of the wings 38 lines.

a. West Africa. From Mr. Argent's collection.

Group 2.

Fœm. Corpus robustum. Palpi porrecti, obtusi, pilosissimi, caput sat longe superantes. Antennæ subpectinatæ, thorace paullo longiores. Abdomen alas posticas vix superans. Alæ latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore recto mediocriter obliquo.

Female. Body stout. Palpi porrect, obtuse, very pilose, extending rather beyond the head. Antennæ minutely pectinated, a little longer than the thorax. Abdomen extending very little beyond the hind wings. Wings broad. Fore wings straight in front, somewhat rounded at the tips, straight and moderately oblique along the exterior border; first and second inferior veins contiguous at the base; third very remote from the second and from the fourth.

2. LEBEDA BIPARS.

Fœm. *Pallide fusco-cervina; antennæ testaceæ; abdomen subtestaceum; alæ anticæ fasciis duabus angustis obliquis subrectis pallide testaceis, unaque concolore exteriore obliqua angulosa interrupta extus fusco marginata; posticæ subtestaceæ.*

Female. Pale brownish fawn-colour. Antennæ testaceous. Abdomen and hind wings dull testaceous. Fore wings with two slender oblique nearly straight pale testaceous bands, which slightly converge towards the interior border; an exterior oblique zigzag interrupted pale testaceous band, bordered with brown on its outer side. Wings beneath testaceous at the base and with a middle testaceous band. Length of the body 10 lines; of the wings 24 lines.

a. Port Natal. From M. Gueinzius' collection.

Asia.

A. Alæ anticæ macula discali alba.
  A. Alæ anticæ latæ.
    A. Alæ posticæ fuscæ. - - - - nobilis, *Walk.*
    B. Alæ posticæ rufescentes.
      a. Alæ anticæ non plagiatæ. - - latipennis, *Walk.*
      b. Alæ anticæ plagiatæ. - - - plagiata, *Walk.*
  B. Alæ anticæ angustæ. - - - - bimaculata, *Walk.*
B. Alæ anticæ macula discali nulla alba.
  A. Alæ anticæ angustæ. - - - - concolor, *Walk.*
  B. Alæ anticæ latæ.
    A. Alæ anticæ plagiatæ. - - - plagifera, *Walk.*
    B. Alæ anticæ non plagiatæ.
      a. Alæ anticæ fasciis rectis aut subrectis.
        i. Alæ fuscæ. - - - - - recta, *Walk.*
        ii. Alæ ferrugineæ. - - - repanda, *Walk.*
        iii. Alæ cervinæ. - - - - - opponens, *Walk.*
      b. Alæ anticæ fasciis undulatis.
        i. Alæ anticæ flavo variæ. - - - undans, *Walk.*
        ii. Alæ anticæ non flavo variæ.
          * Alæ anticæ ferrugineæ. - ferruginea, *Walk.*
          ** Alæ anticæ testaceæ. - - - hebes, *Walk.*

Group 1.

Mas et fœm. Palpi porrecti, crassi, caput paullo superantes. Antennæ thorace paullo longiores. Alæ latæ, longiusculæ; anticæ subacuminatæ, apud costam vix convexæ, margine exteriore subrecto sat obliquo; posticæ apud costam undulatæ. *Mas.*—Antennæ late pectinatæ. Abdomen robustum, alas posticas superans. *Fœm.*—Antennæ mediocriter pectinatæ, alas posticas non superans.

Male and female. Palpi porrect, very stout, extending a little beyond the head. Antennæ a little longer than the thorax. Wings broad, rather long. Fore wings hardly convex in front, slightly acuminated at the tips, nearly straight and rather oblique along the exterior border; first and second inferior veins near together at the base; third remote. Hind wings undulating along the costa. *Male.*—Antennæ deeply pectinated. Abdomen stout, extending rather beyond the hind wings. *Female.*—Antennæ moderately pectinated. Abdomen thick, not extending so far as the hind wings.

3. Lebeda nobilis.

Mas et fœm. *Pallide fusca; antennæ testaceæ; thorax fascia obscuriore; pedes ferrugineo-fusci, tarsis cinereis; alæ anticæ vitta discali obscure fusca, fasciis quatuor pallidioribus unaque obscuriore, guttaque discali trigona argentea; posticæ obscure fuscæ fasciis duabus pallidioribus, ciliis albidis.* Mas.—*Obscurior.* Fœm.—*Pallidior.*

Male. Palpi brown. Antennæ testaceous. Thorax with a darker brown band. Abdomen a little darker than the thorax. Legs ferruginous-brown; tarsi cinereous. Fore wings with a dark brown discal stripe and an irregular dark brown band near the exterior border, also with four paler brown slender bands; two before the middle; the other two beyond, more oblique and somewhat undulating; a silvery white triangular discal dot; an interrupted transverse blackish brown streak by the end of the interior border. Hind wings dark brown, with white ciliæ and with two pale curved bands; wings beneath dark brown, pale brown on the exterior third part, with two still paler bands, which correspond to those above. *Female.*—Like the male in the markings, but with much paler colours; exterior bands of the fore wings less undulating. Length of the body 19—23 lines; of the wings 42—60 lines.

a. Nepaul. Presented by Major-Gen. Hardwicke.
b, *c*. Silhet. From Mr. Sowerby's collection.
d—*g*. Silhet. From the Rev. J. Stainforth's collection.

Group 2.

Mas. Corpus robustum. Palpi validi, pilosi, porrecti, caput sat superantes. Antennæ late pectinatæ, thorace paullo longiores. Abdomen alas posticas paullo superans. Alæ latiusculæ, non longæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore subrecto et subobliquo.

Male. Body stout. Palpi stout, pilose, porrect, projecting rather beyond the head. Antennæ deeply pectinated along the whole length, a little longer than the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Wings rather broad, not long. Fore wings slightly convex in front, rounded at the tips, nearly straight and but slightly oblique along the exterior border; second inferior vein very near the first; third as near to the fourth as to the second.

4. LEBEDA LATIPENNIS.

Mas. *Cervina; antennæ albido-testaceæ, ramis fulvis; alæ anticæ fasciis quinque angustis subobsoletis obliquis undulosis fuscescentibus albo conspersis, 5a guttulari.*

Male. Fawn-colour. Antennæ whitish testaceous, with tawny branches. Fore wings with five slender oblique indistinct more or less undulating brownish branches, two before the middle, three beyond; the first with a white dot in the middle, the fifth darker than the others, composed of dots which are flecked with white. Length of the body 16 lines; of the wings 32 lines.

a. North India. From Mr. James' collection.

Group 3.

Mas. Corpus sat robustum. Proboscis non conspicua. Palpi crassi, pilosi, caput sat longe superantes. Antennæ late pectinatæ, thorace paullo longiores. Abdomen alas posticas paullo superans. Alæ latæ; anticæ apud costam vix convexæ, apice angulatæ, margine exteriore subconvexo mediocriter obliquo.

Male. Body rather stout. Proboscis not visible. Palpi very stout, pilose, extending rather far beyond the head. Antennæ

deeply pectinated, a little longer than the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Wings broad. Fore wings very slightly convex in front, almost rectangular at the tips, slightly convex and moderately oblique along the exterior border; second inferior vein not further from the third than from the first; third much more remote from the fourth than from the second. Hind wings straight along the costa.

5. Lebeda ferruginea.

Mas. *Cervino-ferruginea; alæ anticæ vix glaucescentes, fasciis tribus undulatis angustis obliquis subobscurioribus.*

Male. Ferruginous, inclining to fawn-colour. Body mostly paler than the wings. Fore wings with a very slight glaucous tinge and with slender undulating oblique slightly darker bands; under side of the four wings paler, with two diffuse slightly curved moderately broad bands. Length of the body 19 lines; of the wings 38 lines.

a. Silhet. Presented by E. Doubleday, Esq.

Group 4.

Mas. Corpus robustum. Palpi crassi, porrecti, pilosi, caput aut superantes. Antennæ late pectinatæ, thorace fere longiores. Abdomen alas posticas paullo superans. Alæ latæ; anticæ apud costam subrectæ, apice angulatæ, margine exteriore subconvexo mediocriter obliquo.

Male. Body stout. Palpi porrect, pilose, very stout, extending some little distance beyond the head. Antennæ deeply pectinated, almost longer than the thorax. Abdomen extending for nearly one-fourth of its length beyond the hind wings. Wings broad. Fore wings nearly straight in front, nearly rectangular at the tips, slightly convex and moderately oblique along the exterior border; first and second inferior veins contiguous at the base; third remote from the second and from the fourth.

6. Lebeda undans.

Mas. *Cervina; antennæ testaceæ, ramis fulvis; alæ anticæ testaceæ, basi fasciis nonnullis angustis obliquis subundulosis fasciaque lata marginali cervinis; posticæ apud discum subtestaceæ.*

Male. Fawn-colour. Antennæ testaceous, with tawny branches. Fore wings testaceous, with several slender oblique minutely undulating fawn-coloured bands, fawn-coloured at the base, and with a broad fawn-coloured marginal band. Hind wings slightly testaceous in the disk. Wings beneath with straight oblique testaceous bands beyond the middle. Length of the body 17 lines; of the wings 36 lines.

a. Silhet. Presented by E. Doubleday, Esq.

Group 5.

Fœm. Corpus crassum. Palpi caput sat superantes; articulus 3us brevissimus. Antennæ subpectinatæ, thorace breviores. Abdomen alas posticas paullo superans. Alæ longiusculæ, mediocriter latæ; anticæ subacuminatæ, apud costam subconvexæ, margine exteriore subrecto sat obliquo.

Female. Body thick. Palpi very thick, extending somewhat beyond the head; third joint very short. Antennæ slightly pectinated, shorter than the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Wings rather long, moderately broad. Fore wings slightly acuminated, slightly convex in front, nearly straight and rather oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third remote from the second and from the fourth.

7. Lebeda plagifera.

Fœm. *Cervina; palpi ferruginei; antennæ testaceæ; alæ anticæ plagis duabus ferrugineis una discali pyriformi altera marginali, plaga cinerascente fasciaque exteriore e maculis fuscis; posticæ fasciis duabus indistinctis obliquis obscurioribus.*

Female. Fawn-colour. Palpi ferruginous. Antennæ testaceous. Fore wings with a very large pyriform discal ferruginous patch, which occupies full one-fifth of its surface, its narrow end extending towards one-third of the length of the interior border, where the brown streak, which mostly surrounds the ferruginous part, ends; a white line along the outer side of the ferruginous, and beyond the latter a grayish space, which is succeeded by a short broad ferruginous band along part of the exterior border; an undulating row of brown spots between it and the grayish part; an indistinct brown slender upright band near the base, and another proceeding from the middle of the first ferruginous part to the middle of the interior

border. Hind wings with two indistinct oblique slightly darker bands. Length of the body 18 lines; of the wings 48 lines.

a. Nepaul. Presented by Major-General Hardwicke.

Group 6.

Mas et fœm. Palpi crassi, porrecti, pilosi, obtusi, caput sat longe superantes. Abdomen alas posticas paullo superans. Alæ latæ; anticæ acuminatæ, apud costam vix convexæ, margine exteriore sat obliquo vix convexo. *Mas.*—Antennæ latissime pectinatæ, thorace paullo longiores. Abdomen vix crassum. *Fœm.*—Antennæ mediocriter pectinatæ, thorace paullo breviores. Abdomen crassum, fasciculo apicali semicirculari.

Male and female. Palpi porrect, pilose, obtuse, very stout, extending some distance beyond the head. Abdomen extending for about one-fourth of its length beyond the hind wings. Wings broad. Fore wings acuminated, hardly convex in front, rather oblique and very slightly convex along the exterior border: first and second inferior veins nearly contiguous at the base; third rather remote from the second and more remote from the fourth. *Male.*—Antennæ very deeply pectinated, a little longer than the thorax. Abdomen hardly thick. *Female.*—Antennæ moderately pectinated, a little shorter than the thorax. Abdomen thick, with a semicircular tuft at the tip.

8. Lebeda repanda.

Mas et fœm. *Ferrugineo-fusca; palpi subcinerei; alæ anticæ fasciis quatuor angustis obliquis subpallidioribus unaque latiore exteriore diffusa nigro maculata.*

Male and female. Ferruginous-brown. Palpi somewhat cinereous. Fore wings with four slender oblique slightly paler bands, and with a broader and more diffuse one, which is near the exterior border, and contains a row of blackish spots; third band slightly undulating. Hind wings with a single middle band, which corresponds to the fifth band of the fore band; under side with two bands. Length of the body 15—16 lines; of the wings 32—34 lines.

Var. Fœm. *Ferruginea; caput et thorax antice subcinerea; thorax fascia angusta undulosa nigricante; alæ anticæ fasciis quatuor perangustis obliquis albidis, fasciisque tribus latis subviridescentibus, posticæ fasciis duabus pallidioribus.*

Female. Ferruginous. Head and fore part of the thorax slightly cinereous; this hue is bounded behind by a blackish slender undulating band, which is in a line with the costa of the fore wings. Fore wings with four very slender oblique whitish bands, and with three broad indistinctly greenish bands, the first of the latter between the second and third whitish bands, the second beyond the fourth whitish band, the third along the exterior border. Hind wings with two paler bands, which are hardly visible above, but apparent beneath. Length of the body 15 lines; of the wings 32 lines.

a, *b*. Silhet. From the Rev. J. Stainforth's collection.
c. Ceylon. Presented by R. Templeton, Esq.

Group 7.

Mas. Corpus robustum. Palpi validi, porrecti, pilosi, caput paullo superantes. Antennæ late pectinatæ, thorace breviores. Abdomen alas posticas perpaullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ mediocriter latæ; anticæ subacuminatæ, apud costam rectæ, margine exteriore subrecto sat obliquo.

Male. Body stout. Palpi stout, porrect, pilose, extending a little beyond the head. Antennæ deeply pectinated, shorter than the thorax. Abdomen extending very little beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings moderately broad. Fore wings slightly acuminated, straight in front, somewhat rounded towards the tip of the costa, almost straight and rather oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third about thrice further from the fourth than from the second.

9. LEBEDA RECTA.

Mas. *Cinereo-fusca; antennæ ramis fulvis; alæ anticæ fasciis quatuor obliquis obscurioribus; posticæ fasciis subobsoletis.*

Male. Grayish brown. Antennæ with tawny branches. Fore wings with four darker oblique bands; first near the base, indistinct; second broad, distinct; third very slender; fourth composed of dots, near the exterior border. Hind wings with almost obsolete bands. Length of the body 12 lines; of the wings 30 lines.

a. North India. Presented by General Hearsay.

10. Lebeda hebes.

Fœm. *Cervina; antennæ testaceæ, ramis fulvis; thoracis discus subferrugineus; alæ anticæ subcanescentes, fasciis tribus obliquis subundulosis albido-testaceis ex parte fusco marginatis, gutta basim versus albida guttisque exterioribus fuscis; posticæ pallidiores, obsolete bifasciatæ.*

Female. Fawn-colour. Antennæ testaceous, with tawny branches. Disk of the thorax somewhat ferruginous. Fore wings with a slight hoary tinge, and with three oblique slightly undulating whitish testaceous bands, which are bordered on one side with pale brown; a whitish dot near the inner side of the first band; a row of brown dots more or less apparent on the outer side of the third band. Hind wings a little paler than the fore wings, with two very indistinct bands. Length of the body 12—15 lines; of the wings 28—30 lines.

a North China. From Mr. Cuming's collection.
b, *c*. Hong Kong. Presented by J. C. Bowring, Esq.

11. Lebeda opponens.

Ferrugineo-fulva, subcinerea; alæ cinereo ciliatæ, anticæ fasciis tribus obscurioribus ex parte albido marginatis strigaque transversa basim versus albida.

Ferruginous-tawny, slightly cinereous. Wings with cinereous ciliæ. Fore wings with a transverse whitish streak near the base, and with three oblique bands, which are rather darker than the rest of the wing, and partly have whitish borders; first band attenuated in front, obsolete towards the costa; second attenuated hindward, obsolete towards the hind border; third complete, more slender than the others. Length of the body 9 lines; of the wings 26 lines.

a. North India. From Mr. Stevens' collection.

Group 8.

Mas. Corpus vix robustum. Palpi crassi, porrecti, caput sat superantes. Antennæ latissime pectinatæ, thorace breviores, apices versus mediocriter pectinatæ. Abdomen attenuatum, oblanceolatum, alas posticas dimidio superans. Alæ angustæ; anticæ acuminatæ, apud costam rectæ, margine exteriore perobliquo vix convexo.

Male. Body hardly stout. Palpi very stout, porrect, extending rather far beyond the head. Antennæ shorter than the thorax,

very deeply pectinated to beyond half the length, moderately pectinated from thence to the tips. Abdomen attenuated, oblanceolate, extending for full half its length beyond the hind wings. Wings narrow. Fore wings acuminated, straight along the costa, hardly convex and extremely oblique along the exterior border; first and second inferior veins contiguous at the base; third remote from the second and more remote from the fourth.

12. Lebeda concolor.

Mas. *Ferruginea; abdomen apice nigro-fuscum; alæ anticæ cinereo variæ, apud costam nigro-fuscæ, fasciis sex angustis undulosis subobliquis fuscis.*

Male. Ferruginous. Antennæ blackish brown, with ferruginous branches. Abdomen blackish brown at the tip. Fore wings blackish brown along the costa, with some cinereous hairs, which are most prevalent near the exterior border, and with six slender undulating slightly oblique brown bands. Length of the body 13—15 lines; of the wings 22—26 lines.

Var. β. Body and wings dark brown. Antennæ blackish Fore wings dark ferruginous; bands indistinct; a tawny spot in the disk near the base. Length of the body 13—15 lines; of the wings 21—26 lines.

a. Java. From the East India Company's collection.
b. Silhet. From Mr. Stevens' collection.

13. Lebeda bimaculata.

Mas. *Ferruginea; palpi et abdomen apice obscuriora; alæ anticæ fasciis sex angustis subundulosis subobliquis fuscis, fascia una fulva altera argentea.*

Male. Ferruginous. Antennæ cinereous, with ferruginous branches. Palpi and tip of the abdomen dark ferruginous. Fore wings with six slender slightly undulating and slightly oblique brown bands, with a tawny spot in the disk near the base, and with a silvery white spot a little beyond. Hind wings dark brownish ferruginous. Length of the body 13—15 lines; of the wings 22—26 lines.

a, *b*. Silhet. From Mr. Sowerby's collection.

14. LEBEDA PLAGIATA.

Mas. *Ferruginea aut fusca; alæ anticæ obsolete fasciatæ, plaga discali nigro-fusca albo signata.*

Male. Ferruginous or brown. Fore wings with one or two indistinct exterior paler bands, and with a large blackish brown discal spot, which contains a white mark. Length of the body 8—10 lines; of the wings 18—20 lines.

a. Ceylon. Presented by R. Templeton, Esq.
b. Nepaul. Presented by Major-General Hardwicke.
c. North India. Presented by General Hearsay.
d. Silhet. From Mr. Stainforth's collection.

Australia.

15. LEBEDA APICALIS.

Mas. *Cervina; palpi ferruginei; antennæ fuscæ ramis fulvis; abdomen supra ferrugineum, subtus testaceum; pedes supra ferruginei; alæ anticæ fasciis tribus obliquis angulosis indistinctis fulvis; posticæ basim versus rufescentes.*

Male. Fawn-colour. Palpi ferruginous. Antennæ brown, with tawny branches. Abdomen mostly ferruginous above, testaceous beneath. Legs ferruginous above. Fore wings with three oblique zigzag indistinct tawny bands, a little darker along the exterior border. Hind wings somewhat reddish on more than half the length from the base, paler than the fore wings beyond the reddish part. Length of the body 13—14 lines; of the wings 28—30 lines.

a. Australia. From Mr. Gardner's collection.
b. Sydney. Presented by Dr. Sinclair.

16. LEBEDA OBSCURA.

Mas. *Cervina; caput testaceum; abdomen nigricans, apice testaceum; alæ anticæ fasciis tribus obliquis subundulosis fuscescentibus; posticæ fuscæ, basi rufo-ferrugineæ.*

Male. Fawn-colour. Head testaceous. Palpi projecting far beyond the head. Abdomen blackish, testaceous at the tip. Fore wings with three slender oblique slightly undulating brownish bands. Hind wings brown, reddish ferruginous towards the base. Length of the body 7 lines; of the wings 18 lines.

a. Adelaide. Presented by the Entomological Club.

Country unknown.

Group of *L. concolor.*

17. LEBEDA PRODUCTA.

Mas. *Ferruginea; palpi nigro-fusci, testaceo varii; antennæ cervinæ; abdomen pallide cervinum; alæ cervinæ, anticæ fasciis tribus obliquis testaceis, fascia exteriore e linea fusca angulosa divisa; posticæ subfasciatæ.*

Male. Ferruginous. Palpi blackish brown, with some testaceous hairs. Antennæ fawn-colour. Abdomen pale fawn-colour. Wings fawn-colour. Fore wings with three testaceous oblique bands; the third band near the exterior border, intersected by a very slender brown zigzag band. Hind wings with very indistinct bands. Length of the body 20 lines; of the wings 36 lines.

a. ———? Presented by E. Doubleday, Esq.

Group 2.

Fœm. Palpi validi, pilosissimi, caput sat superantes. Antennæ subpectinatæ, thorace breviores. Abdomen alas posticas paullo superans. Alæ mediocriter latæ, apud costam rectæ, apice subrotundatæ, margine exteriore recto mediocriter obliquo.

Female. Palpi thick, very pilose, extending some distance beyond the head. Antennæ slightly pectinated, shorter than the thorax. Abdomen extending for one-fourth of its length beyond the hind wings. Wings moderately broad. Fore wings somewhat rounded at the tips, straight in front, slightly rounded towards the tip of the costa; exterior border straight, moderately oblique; second inferior vein about thrice further from the third than from the first; third further from the fourth than from the second.

18. LEBEDA DUBIA.

Fœm. *Fusca; abdomen pallide fuscum; alæ anticæ fasciis duabus angustis rectis obliquis subparallelis albidis fasciaque exteriore undulosa subobsoleta testacea; posticæ subpallidiores.*

Female. Brown. Antennæ whitish, with brownish branches. Abdomen very pale brown. Fore wings with two slender straight oblique almost parallel whitish bands, and with an exterior undulating more indistinct testaceous band; the wings beyond the latter

are rather darker than elsewhere. Hind wings a little paler than the fore wings. Length of the body 11 lines; of the wings 24 lines.

a. ——— ?

Genus 18. BOROCERA.

Caput minimum. Proboscis nulla. Oculi parvi, vix prominentes. Antennæ sat graciles, vix pectinatæ, apud medium extus curvatæ. Thorax villosus, rotundatus. Abdomen alis anticis longius. Alæ reversæ. Pedes pilosissimi. *Fœmina* mare triplo major.

Borocera, *Boisd. Faune Ent. Mad. Bomb. et Maur. Lép.* 87.

1. Borocera Madagascariensis.

Alæ maris *fusco-cinnamomeæ; alæ* fœminæ *corticinæ vel cinnamomeæ; anticæ striga basali sinuata; macula media reniformi strigaque obliqua fuscis.*

Borocera Madagascariensis, *Boisd. Faune Ent. Mad. Bomb. et Maur. Lép.* 88, pl. 12, f. 5, 6.

Tamatava, Madagascar.

Genus 19. TOLYPE.

Corpus crassum. Palpi pilosissimi, caput non superantes. Abdomen alas posticas paullo superans. Pedes validi, pilosissimi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subrecto valde obliquo. *Mas.*—Antennæ thorace paullo longiores, mediocriter pectinatæ, basim versus latissime pectinatæ. Abdomen apice longe pilosum. *Fœm.*—Antennæ subpectinatæ, thorace non longiores. Abdomen apice dense lanuginosum.

Phalæna-Bombyx, p., *Stoll.; Abbot and Smith.*
Tolype, p., *Hübn. Verz. Schmett.* 189.

Body thick. Palpi very pilose, not extending beyond the head. Abdomen extending for full one-fourth of its length beyond the hind wings. Legs stout, very pilose; hind tibiæ with two very minute apical spurs. Wings moderately broad. Fore wings straight along the costa, rounded at the tips, nearly straight and very oblique along the exterior border; second inferior vein almost contiguous to the first; third remote; fourth remote from the third. *Male.*—Antennæ a little longer than the thorax, very deeply pectinated for

more than one-third of the length from the base, moderately pectinated from thence to the tips. Abdomen clothed with long hairs at the tip. Wings a little narrower than those of the female. *Female.*—Antennæ slightly pectinated, not longer than the thorax. Abdomen densely lanuginose at the tip.

1. TOLYPE VELLEDA.

Albida; antennæ ramis fulvis; abdominis dorsum sæpe cinereum; alæ subcinereæ, ciliis albidis; anticæ fasciis duabus duplicatis unaque simplice albidis, posticæ fasciis duabus albidis.

Phalæna-Bombyx Velleda, *Stoll, Suppl. Cram. Pap. Exot.* 178, pl. 41, f. 4.
Tolype Velleda, *Hübn. Verz. Schmett.* 189, 1943.
Phalæna Velleda, *Abbot and Smith, Nat. Hist. Lep. Ins. Georgia*, ii. 103, pl. 52.

Whitish. Antennæ with tawny branches. Wings grayish; ciliæ whitish. Fore wings with three oblique slightly undulating whitish bands; the basal one double or treble, the middle one double, the exterior one simple. Hind wings with two whitish bands. Length of the body 6—12 lines; of the wings 14—28 lines.

a, b. Mexico. Presented by E. Doubleday, Esq.
c. Mexico. From Mr. Glennie's collection.
d, e. ———? From Mr. Milne's collection.

Genus 20. ERIOGASTER.

Corpus pilosum, robustum. Palpi pilosi, brevissimi. Abdomen alas posticas vix superans. Pedes pilosi; tibiæ posticæ calcaribus duobus apicalibus minutis. Alæ mediocriter latæ, parum vestitæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo. *Mas.*—Antennæ late pectinatæ. Abdomen apice fasciculatum. *Fœm.*—Antennæ subserratæ. Abdomen apice dense lanuginosum.

Eriogaster, *Germar; Steph. Ill. Brit. Ent. Haust.* ii. 44.
Phalæna-Bombyx, p., *Linn.; Don.; Stew.; Turt.*
Bombyx, p., *Fabr.; Schr.; Oliv.; Esp.; Illig.; Borkh.; Hübn., Haw.; God.; &c.*
Lasiocampa, p., *Schr.; Meig.*
Phalæna, p., *Berk.*

Gastropacha, p., *Ochs.*; *Herr.-Schæff.*
Dasyoma, *Hübn. Verz. Schmett.* 185.
Megalopyge? *Hübn. Verz. Schmett.* 185.

Body, palpi and legs very pilose. Body stout. Palpi very short. Abdomen extending very little beyond the hind wings. Wings moderately broad, thinly clothed. Fore wings straight along the costa, very oblique on the exterior, almost conical in outline towards the tips; first and second inferior veins contiguous at the base; fourth springing from near the base of the wing, full twice further from the third than the third is from the second. *Male.*—Antennæ deeply pectinated. Abdomen tufted at the tip. *Female.*—Antennæ minutely serrated. Abdomen densely lanuginose at the tip.

Europe.

A. Cinereo lateritia; alæ anticæ puncto medio albo. Catax, *Linn.*
B. *Mas* luteus; *fœm.* fusca; alæ anticæ puncto medio strigaque postica flavis. - - - - - - Everia, *Knoch.*
C. Fusco-ferruginea; alæ anticæ macula basali et centrali striaque pone hanc albis. - - - - - - lanestris, *Linn.*

1. Eriogaster Catax.

Alæ corticinæ unicolores; anticæ puncto albo.

Phalæna-Bombyx Catax, *Linn. Syst. Nat.* ii. 815, 27; *Faun. Suec.* ii. 293, 1108. *Gmel. ed. Syst. Nat.* i. 5, 2412, 27.

Bombyx Catax, *Fabr. Sp. Ins.* ii. 179, 55; *Mant. Ins.* ii. 113, 63; *Ent. Syst.* iii. 1, 429, 71. *Hübn. Bomb.* pl. 38, f. 168. *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, O, a, f. 1, a—c. *Oliv. Enc. Méth.* v. 50, 94. *Esp. Schmett.* iii. 88, pl. 16, f. 1—5. *Borkh. Eur. Schmett.* iii. 116, 30; *Rhein. Mag.* i. 365, 221. *Fuessl. Schweiz. Ins.* 34, 644. *Brahm, Ins. Kal.* 285, 177. *Schwarz, Raup.* 78, 211. *God. Lép. de France*, iv. 114, pl. 11, f. 5.

Bombyx rimicola, *Wien. Verz.* 75, 1. *Illig. N. Ausg. dess.* i. 114, 1; *Mag.* ii. 53. *Hübn. Bomb.* 142, 2. *Fuessl. N. Mag.* ii. 376. *Boisd. Gen. et Ind. Méth.* 69, 568.

Lasiocampa rimicola, *Schr. Faun. Boic.* ii. 2, 154, 12.

Lasiocampa Catax, *Meig. Syst. Beschr. Eur. Schmett.* ii. 198, 4, pl. 79, f. 6; *Handb.* 136, 80.

——— ———, *Roës, Ins.* iii. 425, pl. 71, f. 1—3; iv. 239, pl. 34, f. a, b. *Pap. d'Eur.* v. 20, pl. 178, f. 229, a—e.

Gastropacha Catax, *Ochs. Schmett. von Eur.* iii. 285, 19. *Zeller, Ent. Zeit. Stett.* viii. 334. *Herr.-Schaff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 108, 26.
Dasygoma Catax, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Lachneides Pygiacæ*), 85, 1909.

2. Eriogaster Everia.

Alæ maris *luteæ*, fœminæ *fuscæ; anticæ puncto albo strigaque postica flava.*

Phalæna-Bombyx Everia, *Gmel. ed. Syst. Nat.* i. v. 2414, 499.
Bombyx Catax, *Wien. Verz.* 57, 3. *Schr. Faun. Boic.* ii. f. 278, 1164. *Illig. N. Ausg. dess.* i. 115, 3; *Mag.* ii. 53. *Hübn. Bomb.* 142, 1.
Bombyx Everia, *Knoch, Ins.* i. pl. 2. *Fabr. Mant. Ins.* ii. 113, 64; *Ent. Syst.* iii. 1, 430, 72. *Hübn. Bomb.* pl. 138, f. 166, 167. *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, O, a, f. 2, a—c. *Von Müller, Faun. Siles*, iii. 1. *Borkh. Eur. Schmett.* iii. 120, 32; *Rhein. Mag.* i. 366, 222. *Vieweg, Tab. Verz.* i. 55, 13. *Lang. Verz.* ii. 105, 811, 812. *Schwarz, Raup.* 93, 237. *Oliv. Enc. Méth.* v. 50, 95. *God. Lép. de France*, iv. 11, pl. 11, f. 3, 4. *Boisd. Gen. et Ind. Méth.* 69, 567.
Gastropacha Everia, *Ochs. Schmett. von Eur.* iii. 287, 20. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 108, 27.
Dasyoma Everia, *Hübn. Verz. Schmett.* 185, 1910.
Bombyx lentipes, *Esp. Schmett.* iii. 91, pl. 16, f. 6—9; pl. 17, f. 1.
——— ———, *Pap. d'Eur.* v. pl. 179, f. 231.
Lasiocampa Catax, *Schr. Faun. Boic.* ii. 2, 154, 14.
Lasiocampa Everia, *Meig. Syst. Beschr. Eur. Schmett.* ii. 198, 5, pl. 79, f. 7; *Handb.* 136, 81.

a. Europe. Presented by the Entomological Club.
b. Europe. From Mr. Milne's collection.
c—f. Europe. From M. Becker's collection.

3. Eriogaster lanestris.

Alæ subferrugineæ, striga albâ; anticæ puncto basique albæ.

Eriogaster lanestris, *Steph. Ill. Brit. Ent. Haust.* ii. 45, 1.
Phalæna-Bombyx lanestris, *Linn. Syst. Nat.* ii. 815, 28; *Faun. Suec. ed.* 2, 292, 1105. *Gmel. ed. Syst. Nat.* i. 5, 2412, 28. *Don. Hist. Nat. Brit. Ins.* vi. 73, pl. 310. *Stew. El. Nat. Hist.* ii. 146. *Turt. Syst. Nat.* iii. 203.
Bombyx lanestris, *Fabr. Sp. Ins.* ii. 179, 53; *Mant. Ins.* ii. 113, 61; *Ent. Syst.* iii. 1, 429, 68. *Scop. Ent. Carn.* 199, 499. *Wien. Verz.* 57, 2. *Hübn. Bomb.* 143, 3, pl. 38, f. 169, 170;

Larv. Lep. iii. *Bomb.* ii. *Veræ*, O, b, f. 1, a. *Illig. N. Ausg. dess.* i. 115, 2. *Schæff. Icon. Nomencl. Panz.* 55. *Wilkes, Nat. Hist.* pl. 53, a. 18. *Esp. Schmett.* iii. 93, pl. 17, f. 2—8. *Oliv. Enc. Méth.* v. 48, 92. *Borkh. Eur. Schmett.* iii. 123, 33; *Rhein. Mag.* i. 366, 223. *Müll. Faun. Fridr.* 39, 552; *Zool. Dan.* 117, 1354. *Fuessl. Schweiz. Ins.* 34, 646; *A. Mag.* i. 2, 270; *N. Mag.* ii. 72, 28. *Naturf.* xi. 37; xxviii. 87, 16; xxix. 230, 4. *Schr. Faun. Boic.* ii. 1, 278, 1463. *Viewg, Tab Verz.* i. 36, 14. *Lang. Verz.* ii. 104, 809, 810. *Brahm, Ins. Kal.* 288, 179; 544, 405. *Schwarz, Raup.* 79, 211, 373, 515. *God. Lép. de France*, iv. 108, pl. 11, f. 1, 2. *Boisd. Gen. et Ind. Méth.* 69, 566.

Gastropacha lanestris, *Ochs. Schmett. von Eur.* iii. 289, 21. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 108, 28.

Lasiocampa lanestris, *Schr. Faun. Boic.* ii. 2, 154, 13. *Meig. Syst. Beschr. Eur. Schmett.* ii. 199, 6, pl. 79, f. 8; *Haudb.* 136, 82.

Dasyoma lanestris, *Hübn. Verz. Schmett.* 185, 1911.

Phalæna lanestris, *Berk. Syn.* i. 134.

Bombyx lanestrus, *Haw. Lep. Brit.* 124.

——— ———, *Albin, Nat. Hist. Engl. Ins.* pl. 19, f. 26, a—d. *Harris*; *Aur.* pl. 25, f. k—o. *Roës. Ins.* i. 2, 305, pl. 62. *Poda, Ins.* 86, 11. *Schæff. Icon.* pl. 88, f. 10, 11. *Pap. d'Eur.* v. 22, pl. 178, f. 230.

a—h. England. From Mr. Stephens' collection.
i, j. England.
k—m. Europe. From M. Becker's collection.

South America.

Group 1.

Fœm. Corpus crassum. Palpi caput paullo superantes; articulus 3us longi-conicus. Antennæ subpectinatæ, thoracis longitudine. Abdomen alis posticas paullo superans, apice lanuginosum. Pedes validi, pilis longis vestiti. Alæ angustæ; anticæ longiusculæ, apice rotundatæ, margine exteriore perobliquo.

Female. Body thick. Palpi extending a little beyond the head; third joint elongate-conical. Antennæ minutely pectinated, as long as the thorax. Abdomen extending for one-fourth of its length beyond the hind wings, thickly lanuginose at the tip. Legs stout, clothed with long hairs. Wings narrow. Fore wings rather long, rounded at the tips, extremely oblique along the exterior border; second inferior vein nearly contiguous to the first; third remote from the second and a little further from the fourth.

4. ERIOGASTER UNDULOSA.

Fœm. *Cinerea; antennæ fulvæ; abdomen fuscescens, apice nigro lanuginosum; pedes fulvi, pilis longis cinereis; alæ basi pilis longis vestiti, anticæ fasciis quatuor obliquis undulosis albidis, posticæ pallidiores.*

Female. Cinereous. Antennæ tawny. Abdomen brownish, black and lanuginose at the tip. Legs tawny, clothed with long cinereous hairs. Wings with long hairs at the base. Fore wings with four oblique undulating whitish bands, of which the second is broader than the others. Hind wings a little paler than the fore wings. Length of the body 9 lines; of the wings 22 lines.

a, *b*. Rio Janeiro. From Mr. Stevens' collection.

Group 2.

Mas. Corpus crassum. Antennæ late pectinatæ, dimidio fere apicali mediocriter pectinatæ. Alæ sat angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subrecto perobliquo, angulo exteriore obtuso distincto.

Male. Body thick. Antennæ shorter than the thorax, deeply pectinated to rather beyond half the length, moderately pectinated from thence to the tips. Abdomen extending for one-third of its length beyond the hind wings. Wings rather narrow. Fore wings straight along the costa, rounded at the tips, very oblique and almost straight along the exterior border; interior angle obtuse, distinct; first and second inferior veins contiguous; third very remote.

5. ERIOGASTER INDECISA.

Mas. *Cinerascens; antennæ fulvæ; abdomen albidum fasciis cinereis; alæ albidæ, fasciis indistinctis obliquis subundulosis pallide cinerascentibus; anticæ subtus obscuriores.*

Male. Cinereous. Antennæ tawny. Abdomen with whitish bands. Wings whitish, with several indistinct oblique slightly undulating pale cinerous bands, which are most apparent in the fore wings. Fore wings darker beneath. Hind wings almost white towards the base. Length of the body 9 lines; of the wings 18 lines.

This may be the male of *E. undulosa*.

a, *b*. Brazil. From M. Becker's collection.

6. Eriogaster? lanata.

Cinerea. Mas.—*Alæ anticæ costa pallida, margine interiore subrufescente.* Fœm.—*Caput et thorax sordide rubræ; alæ anticæ basi sordide rubræ, strigis marginalibus nigro-cinereis.*

——— ———, *Merian, Surin. Ins.* pl. 19.
Phalæna-Bombyx lanata, *Cram. Pap. Exot.* iii. 130, 131, pl. 265, f. F, G.
Bombyx lanata, *Oliv. Enc. Méth.* v. 48, 91.
Megalopyge lanifera, *Hübn. Verz. Schmett.* 185, 1907.
Surinam.

Africa.

A. Alæ non conspersæ. - - - - punctifascia, *Walk.*
B. Alæ fusco conspersæ. - - - - incompta, *Walk.*

7. Eriogaster punctifascia.

Mas. *Cervina; antennæ testaceæ; abdomen testaceum, apice pilis longis vestitum, alas posticas triente superans; alæ anticæ basi costa ciliisque cinerascentibus, macula basali rufo-cervina, fasciaque exteriore e guttis cinerascentibus; posticæ cervino-albidæ.* Fœm.—*Cervina; antennæ fulvescentes; abdomen testaceum; alæ anticæ fasciis duabus angustis perobliquis subundulosis obscurioribus.*

Male. Fawn-colour. Antennæ testaceous. Abdomen testaceous, clothed at the tip with long hairs, extending for one-third of its length beyond the hind wings. Fore wings cinereous at the base and along the costa, and on the ciliæ, with a reddish fawn-coloured spot at the base and with a slight exterior band composed of grayish dots. Hind wings whitish fawn-colour. Length of the body 6 lines; of the wings 12 lines. *Female.*—Fawn-colour. Antennæ somewhat tawny. Abdomen testaceous. Fore wings with two slender slightly undulating very oblique darker bands, the inner one across the tip of the discal areolet, the other at half the distance between the first and the exterior border. Length of the body 7 lines; of the wings 16 lines.

a—c. Port Natal. From M. Gueinzius' collection.

8. ERIOGASTER INCOMPTA.

Mas. *Sordide cervina; abdomen testaceum, alas posticas triente superans; alæ anticæ fasciis duabus angustis obliquis strigisque exterioribus albido-testaceis guttaque discali intermedia alba; posticæ albido-testaceæ.*

Male. Dingy fawn-colour. Abdomen more testaceous, extending for one-third of its length beyond the hind wings. Fore wings slightly flecked with brown, adorned with a white discal dot between two slender oblique whitish testaceous bands; some indistinct whitish testaceous streaks forming an interrupted band towards the exterior border. Hind wings whitish testaceous. Length of the body 8 lines; of the wings 15 lines.

a. Port Natal. From M. Gueinzius' collection.

Australia.

Group 1.

Fœm. Corpus sat robustum. Palpi pilosi, brevissimi. Antennæ vix pectinatæ, thorace paullo longiores. Abdomen alas posticas paullo superans, apice sublanuginosum Pedes breves, graciles. Alæ anticæ apice subacuminatæ, margine exteriore perobliquo, areola discali aperta.

Female. Body moderately stout. Palpi pilose, very short. Antennæ hardly pectinated, a little longer than the thorax. Abdomen extending a little beyond the hind wings, slightly lanuginose at the tip. Legs short, slender. Fore wings slightly acuminated, extremely oblique along the exterior border; discal areolet open; first and second inferior veins contiguous at the base; third very remote.

The following species differs from the typical form of *Eriogaster*, and seems to be nearly allied to the *Saturniidæ*.

9. ERIOGASTER? SIMPLEX.

Fœm. *Cervina; antennæ testaceæ; alæ cinerascentes, anticæ fasciis subobsoletis obscurioribus, posticæ pallidiores.*

Female. Fawn-colour. Antennæ testaceous. Wings grayish. Fore wings with two or three straight darker oblique very indistinct bands. Hind wings a little paler than the fore wings. Length of the body 6 lines; of the wings 16 lines.

a. Australia. From Mr. Argent's collection.

Country unknown.

North America?

10. ERIOGASTER HEBES.

Cervina ; alæ anticæ maculâ parvâ discali albida. Fœm.—*Abdomen apice lanugine nigricante dense vestitum.*

Nearly allied to *E. Everia*. Fawn-colour. Fore wings with a little discal whitish spot, much smaller and more dull than that of *E. Everia*. *Female.*—Abdomen at the tip thickly clothed with blackish woolly hairs. Length of the body 7—8 lines; of the wings 15—18 lines.

a, *b*. ——? Presented by E. Doubleday, Esq.
c, *d*. ——? From Mr. Milne's collection.

Genus 21. PŒCILOCAMPA.

Corpus robustum, pilosum. Palpi brevissimi, pilosissimi. Pedes pilosissimi, vix robusti; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ subhyalinæ, parce vestitæ, vix latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo. *Mas.*—Antennæ late pectinatæ, thorace multo longiores. Abdomen alas posticas vix superans. *Fœm.*—Antennæ subpectinatæ, thorace paullo longiores. Abdomen alas posticas paullo superans, apice lanuginosum.

Pœcilocampa, *Steph. Ill. Brit. Ent. Haust.* ii. 43.
Phalæna-Bombyx, p., *Linn.*; *Berk.*; *Don.*; *Stew.*; *Turt.*
Bombyx, p., *Fabr.*; *Oliv.*; *Schr.*; *Illig.*; *Esp.*; *Borkh.*; *Hübn. Haw.*; *God.*; *Boisd.*; *&c.*
Diaphone, *Hübn. Verz. Schmett.* 188.
Megalopyge? *Hübn. Verz. Schmett.* 185.
Gastropacha, p., *Ochs.*; *Herr.-Schæff.*
Eriogaster, p., *Samouelle.*

Body robust, pilose. Palpi very short and pilose. Legs very pilose, hardly stout; hind tibiæ with two very minute apical spurs. Wings slightly hyaline, thinly clothed, hardly broad. Fore wings straight along the costa, slightly rounded at the tips, very oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third moderately remote from the second; much more remote from the fourth. *Male.*—Antennæ deeply pectinated, much longer than the thorax. Abdomen hardly extending

beyond the wings. *Female.*—Antennæ very minutely pectinated. Abdomen lanuginose at the tip, extending a little beyond the hind wings.

Europe.

1. Pœcilocampa Populi.

Fusca; thorax antice pallidus; alæ fuscescentes, striga sesquialtera repanda albu, anticæ basi pallide fuscæ.

Pœcilocampa Populi, *Steph. Ill. Brit. Ent. Haust.* ii. 44, 1.

Phalæna-Bombyx Populi, *Linn. Syst. Nat.* ii. 818, 34; *Faun. Suec. ed.* 2, 291, 1101. *Gmel. ed. Syst. Nat.* i. 5, 2414, 34. *Berk. Syn.* i. 134. *Don. Hist. Nat. Brit. Ins.* ix. 41, pl. 397. *Stew. El. Nat. Hist.* iii. 148. *Turt. Syst. Nat.* iii. 203.

——— ———, *Albin, Nat. Hist. Engl. Ins.* pl. 85. *Roës. Ins.* i. 2, 301, pl. 60; 428, pl. 71, f. 7—9. *Schæff. Icon.* pl. 279, f. 1, 2. *Pap. d'Eur.* v. 37, pl. 183, f. 236.

Bombyx Populi, *Fabr. Sp. Ins.* ii. 179, 54; *Mant. Ins.* ii. 113, 62; *Ent. Syst.* iii. 1, 429, 70. *Wien. Verz.* 58, 9. *Schr. Faun. Boic.* ii. 1, 280, 1467. *Illig. N. Ausy. dess.* i. 119, 9. *Oliv. Enc. Méth.* v. 249, 93. *Hübn. Bomb.* 141, 5, pl. 36, f. 163; *Larv. Lep.* iii. *Bomb.* ii. *Veræ, M.* b. f. 1, a—c. *Schæff. Icon. Nomencl. Panz.* 217. *Esp. Schmett.* iii. 136, pl. 25, f. 1—8. *Wilkes, Nat. Hist.* pl. 48. *Borkh. Eur. Schmett.* iii. 129, 35; *Rhein. Mag.* i. 367, 225. *Fuessl. Schweiz. Ins.* 34, 652; *A. Mag.* i. 2, 285. *Vieweg, Tab. Verz.* i. 36, 15. *Lang. Verz.* ii. 103, 795, 798. *Brahm, Ins. Kal.* 286, 178. *Schwarz. Raup.* 65. *God. Lép. de France*, iv. 119, pl. 10, f. 4. *Boisd. Gen. et Ind. Méth.* 70, 576.

Bombyx Populens, *Haw. Lep. Brit.* 127.

Diaphone Populi, *Hübn. Verz. Schmett.* 188, 1937.

Gastropacha Populi, *Ochs. Schmett. von Eur.* iii. 276, 15. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 105, 13.

Lasiocampa Populi, *Meig. Syst. Beschr. Eur. Schmett.* ii. 202, 11, pl. 79, f. 2. *Handb. Ent.* 134, 77.

a—j. England. From Mr. Stephens' collection.

k—m. England.

n—q. Europe. From M. Becker's collection.

r. Europe.

South America.

Group 1.

Fœm. Corpus robustum, pilosum. Palpi pilosi, crassi. Antennæ subpectinatæ, thorace breviores. Abdomen apice lanuginosum, alas posticas vix superans. Pedes validi pilosi. Alæ longiusculæ, non latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore obliquo.

Female. Body stout, pilose. Palpi pilose, very stout. Antennæ slightly pectinated, shorter than the thorax. Abdomen lanuginose at the tip, extending very little beyond the hind wings. Legs very pilose, the fore legs especially so. Wings rather long, not broad. Fore wings straight along the costa, rounded at the tips, oblique along the exterior border; interior angle much rounded; three inferior veins; first and second contiguous at the base; third rather remote.

2. PŒCILOCAMPA PRIMITIVA.

Fœm. *Cinereo-nigra; palpi basi fulvi; thoracis latera antica fulva; abdomen subtus utrinque apiceque fulvum; alæ anticæ macula parva discali nigra fasciisque duabus duplicatis undulosis cervinis, apud marginem exteriorem canæ maculis nigricantibus; posticæ fascia exteriore subobsoleta cana.*

Female. Grayish black. Palpi tawny at the base. Thorax tawny on each side in front. Abdomen tawny along each side beneath and at the tip. Pectus and posterior legs clothed with pale fawn-coloured hairs. Fore wings with a small black discal spot, and with two undulating double oblique pale fawn-coloured bands; nearly one-third of the surface along the exterior border hoary, with a marginal row of blackish spots; veins fawn-colour. Hind wings with an indistinct hoary band near the exterior border. The four wings gray beneath. Length of the body 9 lines; of the wings 26 lines.

Rio Janeiro. In Mr. Fry's collection.

3. PŒCILOCAMPA? NUDA.

Fœm. *Cervina; alæ cinereæ, ex parte albo marginatæ; venis cervinis; anticæ strigis exterioribus inter venas nigris.*

Phalæna-Bombyx nuda, *Cram. Pap. Exot.* iv. 33, pl. 306, f. B.
Megalopyge nuda, *Hübn. Verz. Schmett.* 185, 1908.

Surinam.

Asia.

Group 1.

Mas. Corpus robustum, pilosum. Palpi breves, caput non superantes. Pedes subpilosi, mediocriter longi. Alæ anticæ subfusiformes, longiusculæ, sat angustæ, apud costam subconvexæ, apice subrotundatæ, margine exteriore perobliquo; posticæ paullo latiores, abdomen paullo superantes.

Male. Body stout, pilose. Palpi short, not extending beyond the head. Abdomen not extending quite so far as the hind wings. Legs moderately long, not very hairy. Fore wings rather long and narrow, nearly fusiform; first and second inferior veins almost contiguous at the base; third much nearer to the second than to the fourth, which springs from near the base of the wing. Hind wings rather broader than the fore wings.

4. Pœcilocampa undulosa.

Mas. *Obscure fusca; verticis discus et abdomen ferrugineo-fusca; alæ anticæ macula discali testacea fasciisque tribus duplicatis undulosis obliquis testaceis, posticæ fascia una duplicata margineque testaceis.*

Male. Dark brown. Disk of the vertex and abdomen ferruginous-brown. Fore wings with a testaceous discal spot, and with three double undulating oblique testaceous bands; the first near the base, the second beyond the middle, the third submarginal. Hind wings with one discal oblique undulating double testaceous band and a broad testaceous border. Length of the body 10 lines; of the wings 34 lines.

a. Nepaul. Presented by Major-Gen. Hardwicke.

Australia.

5. Pœcilocampa leucopyga.

Fœm. *Cervina; antennæ testaceæ; thorax ex parte fusco pilosus; abdomen apice album; pedes albidi; alæ fuscescentes, antice gutta discali alba.*

Female. Bright fawn-colour. Thorax partly clothed with brown hairs. Abdomen white at the tip. Legs whitish. Wings pale brown. Fore wings with a white discal dot, somewhat fawn-coloured along the costa. Hind wings with a whitish discal dot on

the under side. Length of the body 7 lines; of the wings 18 lines.

a. Adelaide. From Mr. Stevens' collection.

6. PŒCILOCAMPA? CINEREA.

Alæ quatuor cinereæ, unda communi fusca; transversa regulari serieque punctorum obsoletorum; subtus cinereæ fascia communi lata ferruginea.

Bombyx cinerea, *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 225, 8.

New Holland.

Country unknown.

7. PŒCILOCAMPA? SIMULANS.

Cinereo-fusca; alæ nigro-cinereæ, semihyalinæ; anticæ fasciis tribus subundulosis albidis; posticæ fascia discali albida.

Cinereous-brown. Head wanting. Abdomen with blackish hairs at the tip. Wings blackish gray, semihyaline, with rather darker borders. Fore wings slightly convex along the costa, rounded at the tips, with a black mark at the tip of the discal areolet, and with three whitish oblique somewhat undulating bands; first band between the base of the wing and the discal mark; second beyond the middle; third submarginal; first and second inferior veins united at the base; third about twice further from the fourth than from the second; fourth at its base very near the root of the wing. Hind wings with one whitish discal band, which corresponds with the second band of the fore wings. Length of the body 7 lines; of the wings 21 lines.

a. ——— ?

Genus 22. GASINA.

Fœm. Corpus robustum, pilosum. Palpi pilosi, brevissimi. Antennæ simplices, graciles. Abdomen apice lanuginosum, alas posticas superans. Pedes sat graciles; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ longiusculæ, sat angustæ; anticæ apud costam rectæ, apice rotundatæ.

Female. Body stout, pilose. Palpi pilose, very short, not appearing beyond the hairs. Antennæ simple, slender. Abdomen lanuginose at the tip, extending somewhat beyond the hind wings.

Legs rather slender; hind tibiæ with two small apical spurs. Wings rather long and narrow. Fore wings straight along the costa, rounded at the tips, formed like those of *Pœcilocampa*, to which this genus is nearly allied; second inferior vein about thrice further from the third than from the first; third as far from the second as from the fourth.

1. GASINA ALBICOLLIS.

Fœm. *Fusco-cinerea; thorax antice albo fasciatus; alæ subhyalinæ, anticæ basi lanuginosæ, apud costam albicantes, macula discali nigricante.*

Female. Brownish cinereous. Thorax with a white band along the fore border. Wings slightly hyaline. Fore wings towards the base with woolly hair, especially along the costa, where the hair is white and curly; a blackish spot at the tip of the discal areolet. Length of the body 7 lines; of the wings 20 lines.

a. Parà. From Mr. Stevens' collection.

Genus 23. TRICHIURA.

Corpus robustum aut crassum. Palpi breves, pilosissimi, caput non superantes. Antennæ thorace paullo longiores. Abdomen apice valde pilosum. Pedes pilosissimi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ, non longæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore vix obliquo. *Mas.*—Antennæ late pectinatæ. Abdomen robustum alas posticas vix superans. *Fœm.*—Antennæ subpectinatæ. Abdomen crassum, alas posticas perpaullo superans.

Trichiura, *Steph. Ill. Brit. Ent. Haust.* ii. 42.
Phalæna-Bombyx, p., *Linn.; Gmel.; Don.; Stew.; Turt.*
Phalæna, p., *Deg.*
Bombyx, p., *Fabr.; Oliv.; Hübn.; Borkh.; Haw.; God.; Boisd.; &c.*
Clisiocampa, p., *Curt.*
Gastropacha, p., *Ochs.; Herr.-Schæff.*
Diaphone, p., *Hübn. Verz. Schmett.* 188.
Lasiocampa, p., *Meig.*

Body robust or thick. Palpi short, very pilose, not extending beyond the head. Antennæ a little longer than the thorax. Abdomen very pilose at the tip. Legs very pilose; hind tibiæ with two very minute apical spurs. Wings broad, rather short. Fore wings

straight along the costa, slightly rounded at the tips, hardly oblique along the exterior border; first and second inferior veins contiguous at the base; third very remote from the second and from the fourth. *Male.*—Antennæ deeply pectinated. Abdomen stout, hardly extending beyond the hind wings. *Female.*—Antennæ very minutely pectinated. Abdomen thick, extending a little beyond the hind wings.

Europe.

1. Trichiura Cratægi.

Alæ cinereæ; lineæ ambæ flexuosæ fasciam obscuriorem includentes.

Trichiura Cratægi, *Steph. Ill. Brit. Ent. Haust.* i. 43, 1.

Phalæna-Bombyx Cratægi, *Linn. Syst. Nat.* i. 2, 823, 48; *Faun. Succ. ed.* 2, 299, 1126. *Gmel. ed. Syst. Nat.* i. 5, 2424, 48. *Don. Hist. Nat. Brit. Ins.* iv. 23, pl. 117. *Stew. El. Nat. Hist.* ii. 151. *Turt. Syst. Nat.* iii. 218.

——— ———, *Reaum. Ins.* 1, pl. 44, f. 7—10. *Deg. Ins.* i. 1, 143, pl. 11, f. 1821; ii. 1, 214, 3; *Gen.* 36, 44. *Albin, Hist. Nat. Engl. Ins.* pl. 34, f. 54, a—d; pl. 88, f. 1. *Schæff. Icon.* pl. 133, f. 3, 4. *Sepp, Ins.* ii. pl. 25, f. 1—8. *Pap. d'Eur.* v. 34, 182, f. 255.

Bombyx Cratægi, *Fabr. Sp. Ins.* ii. 194, 104; *Mant. Ins.* ii. 126, 150; *Ent. Syst.* iii. 1, 460, 166. *Wien. Verz.* 58, 8. *Oliv. Enc. Méth.* v. 83, 200. *Illig. N. Ausg. dess.* i. 118, 8. *Hübn. Bomb.* 141, 4, pl. 36, f. 162. *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, M, b, f. 1, a—d. *Donov. Nat. Hist. Engl. Ins.* iv. pl. 117. *Esp. Schmett.* iii. 233, pl. 45, f. 1—6. *Borkh. Eur. Schmett.* iii. 127, 34; *Rhein. Mag.* i. 367, 224. *Fuessl, Schweiz. Ins.* 35, 665; *N. Mag.* ii. 72, 48. *Lang. Verz.* ii. 104, 806—808. *Brahm, Ins. Kal.* 292, 181; *Schwarz, Raup.* 84, 237. *Boisd. Gen. et Ind. Méth.* 70, 574. *Schæff. Icon. Nomencl. Panz.* 133. *Zett. Ins. Lapp.* 926, 6. *God. Lép. de France*, iv. 122, pl. 12, f. 3, 4.

Var. Bombyx Mali, *Fabr. Mant. Ins.* ii. 115, 75; *Ent. Syst.* iii. 434, 85. *Borkh. Eur. Schmett.* iii. 468, 27, 28, e. *Oliv. Enc. Méth.* v. 55, 112.

Var. Bombyx Avellanæ, *Fabr. Mant. Ins.* ii. 116, 76. *Borkh. Eur. Schmett.* iii. 468, 27, 28, f. *Oliv. Enc. Méth.* v. 55, 113.

Var. Bombyx Cratægus, *Haw. Lep. Brit.* 105.

Var. Bombyx pallidus, *Haw. Lep. Brit.* 105.

Var? Noctua Vitisideæ, *Linn. Syst. Nat.* i. 834, 88; *Faun. Suec. ed.* 2, 309, 1163.
Diaphone Cratægi, *Hübn. Verz. Schmett.* 188, 1938.
Phalæna-Bombyx Mali, *Gmel. ed. Syst. Nat.* i. 5, 2416, 504.
Phalæna-Bombyx Avellanæ, *Gmel. ed. Syst. Nat.* i. 5, 2416, 505.
Gastropacha Cratægi, *Ochs. Schmett. von Eur.* iii. 278, 16. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 105, 12.
Var.? Bombyx Ariæ, *Hübn. Bomb.*
Lasiocampa Cratægi, *Meig. Syst. Beschr. Eur. Schmett.* ii. 203, 12, pl. 79, f. 3; *Handb.* 135, 78.

a—m. England. From Mr. Stephens' collection.
m—q. England.
r—u. Europe. From M. Becker's collection.

Australia.

2. TRICHIURA MYCERIA.

Thorax cinereus, lineola basali brevi; alæ anticæ cano cinereæ, strigis duabus transversis, sinuato dentatis, lunulaque media fuscis; posticæ fusco-cinereæ.

Bombyx myceria, *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 226, 9.
New Holland.

Country unknown.

3. TRICHIURA OBSCURA.

Mas. *Cinereo-fusca; thorax nigro-fuscus; alæ anticæ fasciis duabus angustis angulosis nigricantibus luteo ex parte marginatis, posticæ fascia una obscure fusca.*

Male. Cinereous-brown. Head and legs partly ferruginous. Antennæ whitish, with blackish branches. Thorax blackish brown. Fore wings with two slender zigzag slightly oblique blackish bands; inner side of the first band and outer side of the second luteous. Hind wings with a brown band, which corresponds to the outer band of the fore wings. Length of the body 5 lines; of the wings 12 lines.

This species much resembles *T. Cratægi*, but may be distinguished by the smaller and more numerous angles of the exterior band of the fore wings.

a. ——— ? Presented by the Entomological Club.

Genus 24. LAÖRA.

Mas. Corpus robustum, pilis longis dense vestitum. Palpi brevissimi, pilosissimi. Antennæ latissime pectinatæ, corporis dimidio longiores. Abdomen alas posticas non superans. Pedes sat validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latæ, subhyalinæ.

Male. Body stout, thickly clothed with long hairs. Palpi very short and pilose. Antennæ very deeply pectinated, more than half the length of the body. Abdomen not extending beyond the hind wings. Legs moderately stout; hind tibiæ with two minute apical spurs. Wings broad, slightly hyaline; ciliæ rather darker in the veins. Fore wings with the second inferior vein nearer to the first than to the third; third more than twice further from the fourth than from the second.

This genus is perhaps allied to the *Liparidæ*.

1. LAÖRA ANTENNATA.

Mas. *Obscure fusca, subtus pallidior; alarum ciliæ pallide fuscæ, apud venas obscuriores; posticæ albido-cinereæ, fusco marginatæ.*

Male. Dark brown, rather paler beneath. Ciliæ of the wings pale brown, darker in a line with the veins. Hind wings whitish gray, with brown borders, more hyaline than the fore wings. Length of the body 5 lines; of the wings 14 lines.

a. Santa Fé de Bogotà. From Mr. Isaacson's collection.

Genus 25. CALLIA.

Mas. Corpus validum, pilosum, breviusculum. Proboscis brevissima. Palpi mediocriter longi; articulus 2us 1o multo longior; 3us minimus. Abdomen alas posticas non superans. Pedes graciles, pilosi; tibiæ posticæ calcaribus apicalibus. Alæ latæ, non longæ. *Mas.*—Palpi pilosissimi. Antennæ late pectinatæ, longiusculæ. Abdomen obconicum. *Fœm.*—Palpi mediocriter pilosi. Antennæ subpectinatæ, breviusculæ. Abdomen lineare, valde incrassatum.

Body stout, very hairy, rather short. Proboscis very short Palpi of moderate length; second joint much longer than the first; third joint very small. Abdomen extending as far as the hind

wings. Legs slender, hairy; hind tibiæ with apical spurs. Wings broad, not long. Fore wings with three inferior veins; second very near the first; third much further from the second than the second is from the first. *Male.*—Palpi very hairy. Antennæ deeply pectinated, rather long. Abdomen obconical. *Female.*—Palpi moderately hairy. Antennæ slightly pectinated, rather short. Abdomen linear, very stout.

1. CALLIA ALBIFINIS.

Mas. *Caput, thorax anticus, pedes et alæ anticæ ferruginea, albo varia; antennæ albidæ, ramis fulvis; thorax et abdomen basi nigro-fusca, albo varia; abdomen album; alæ anticæ litura basali albida, fascia nitente alba nigro marginata discali fasciisque duabus obliquis undulatis exterioribus albidis, una lituris dentatis nigro-fuscis, subtus fuscæ albo variæ marginibusque albis; posticæ albæ.* Fœm.?—*Caput, thorax, palpi subtus pectusque alba; caput subtus, palpi supra antennæque nigra; abdomen rufo-ferrugineum, apicem versus et subtus nigro-fuscum, apice albo subtus nigro bifasciato; pedes nigri, albo fasciati; alæ anticæ rufo-ferrugineæ, fascia basim versus arcuata albida, macula alba discali, fasciisque duabus exterioribus albidis, his fasciam e maculis nigris albo terminatis includentibus; posticæ pallide ferrugineæ, fascia subtus media albida.*

Male. Head, fore part of the thorax, legs and fore wings ferruginous, mingled with white. Antennæ whitish, with tawny branches. Thorax and base of the abdomen blackish brown, mingled with white. Abdomen, except at the base, white. Fore wings with a whitish mark near the base, with a shining white black-bordered band by the discal areolet, and with two outer oblique undulating whitish bands, the outermost band accompanied by a row of dentate blackish brown marks; under side brown, mingled with white, and with white hind borders. Hind wings white. Length of the body 6 lines; of the wings 14 lines.

a. Sydney. From Mr. Lambert's collection.

Female? Head, thorax, and pectus white. Head black beneath. Palpi black above, white beneath. Antennæ black. Abdomen reddish ferruginous, blackish brown beneath and towards the tip, which is white; the latter hue prevails most beneath, where it is accompanied at some distance from the tip by two imperfect blackish bands. Legs black, with white bands. Fore wings reddish

ferruginous, with a curved whitish band near the base, with a white spot on the discal areolet, and with two whitish bands beyond, the first band undulating, the second marginal, and between them a band of blackish white-tipped spots. Hind wings pale ferruginous, with a whitish middle band beneath. Length of the body 6 lines; of the wings 15 lines.

b. Van Dieman's Land. Presented by — Walcott, Esq.

Genus 26. OMPHALIA.

Mas. Corpus sat robustum. Antennæ late pectinatæ. Abdomen alas posticas non superans. Alæ latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subobliquo. *Fœm.*— Corpus robustum. Antennæ simplices. Abdomen alas posticas dimidio superans. Alæ angustæ; anticæ margine exteriore sat obliquo.

Omphalia, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Ser.* i.

Male. Body rather stout. Antennæ deeply pectinated. Abdomen not extending beyond the hind wings. Wings broad. Fore wings straight in front, rounded at the tips, very slightly oblique along the exterior border. *Female.*—Body stout. Antennæ simple. Abdomen extending for full half its length beyond the hind wings. Wings narrow. Fore wings rather oblique along the exterior border.

1. Omphalia psorica.

Mas. *Ferruginea; alæ anticæ obscure fuscæ, ferrugineo variæ, gutta discali nigra fasciisque tribus undulosis ferrugineis nigro marginatis; posticæ obscure fuscæ, basi ciliisque ferrugineis.* Fœm.— *Cana; alæ albidæ, anticæ fasciis tribus guttulariibus subundulosis nigris.*

Omphalia psorica, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Ser.* i. pl. 19, f. 92, 93.

Male. Ferruginous. Fore wings dark brown, partly ferruginous in the disk, with a black discal mark and with three undulating black-bordered bands. Hind wings dark brown, ferruginous at the base and with a ferruginous fringe. *Female.*—Hoary. Wings whitish. Fore wings with three slightly undulating black dotted bands; the first and second imperfect.

Brazil.

2. OMPHALIA? AFFINIS.

Cinereo fulvoque pilosa; alæ anticæ obscure cinereæ, strigis duabus undulatis punctoque discali nigris; posticæ cinnamomeæ.

Bombyx affinis, *Feisth. Voy. de la Favorite*, v. *Suppl.* 24, pl. 7, f. 1; *Mag. de Zool.* 2me *Sér. Cl.* ix. pl. 23, f. 1. *Blanch. Gay, Hist. de Chile, Zool.* vii. 65, 2. *Atlas, Zool. Ent. Lep.* pl. 6, f. 3.

Conception.

Genus 27. CLISIOCAMPA.

Corpus robustum aut crassum. Palpi breves, subacuti, caput vix superantes. Antennæ thorace paullo longiores. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ plus minusve latæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore sat obliquo. *Mas.*—Antennæ late pectinatæ. Abdomen robustum, alas posticas vix superans. *Fœm.*—Antennæ subpectinatæ. Abdomen crassum, alas posticas triente superans.

Clisiocampa, *Steph. Ill. Brit. Ent, Haust.* ii. 48.
Phalæna-Bombyx, p., *Linn.; Berk.; Stew.; Don.; Turt.*
Phalæna, p., *List.*
Bombyx, p., *Fabr.; Oliv.; Schr.; Illig.; Hübn.; Haw.; Borkh.; God.; Boisd.; &c.*
Lasiocampa, p., *Schr.; Meig.*
Clisiocampa, p., *Curt.*
Gastropacha, p., *Ochs.; Herr.-Schæff.*
Malacosoma, p., *Hübn. Verz. Schmett.* 192.
Aselgia? *Hübn. Verz. Schmett.* (*Phalænæ Veræ Trichodæ Hebescentes*), 192.

Body stout or thick. Palpi short, hardly extending beyond the head; third joint slightly acuminated. Antennæ a little longer than the thorax. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings more or less broad. Fore wings straight in front, slightly rounded at the tips, somewhat oblique along the exterior border; first and second inferior veins almost contiguous at the base; third twice further from the fourth than from the second. *Male.*—Antennæ deeply pectinated. Abdomen robust, hardly extending beyond the hind wings. *Female.*—Antennæ very slightly pectinated. Abdomen thick, extending for one-third of its length beyond the hind wings.

Europe.

1. Clisiocampa castrensis.

Alæ anticæ maris *pallide flavæ, strigis duabus fasciaque postica fuscis;* fœminæ *ferrugineæ fasciis duabus flavescentibus.*

Clisiocampa castrensis, *Curt. Brit. Ent.* v. pl. 229, 9. *Steph. Ill. Brit. Ent. Haust.* ii. 48. pl. 13, f. 2.

——— ———, *List. Göed.* (Angl.) 85, f. 89; (Lat.) 204, f. 89. *Albin, Nat. Hist. Engl. Ins.* pl. 19, f. 27, e—l. *Wilkes*, 21, pl. 45. *Harris, Aur.* pl. 17, a—f. *Roës. Ins.* iv. 109, pl. 14. *Frisch, Ins.* x. 10, pl. 8. *Deg. Ins.* i. 2, 7, pl. 13, f. 1—6; 4, 72; ii. 1, 213, 2. *Schæff. Icon.* pl. 211, f. 3, 4. *Pap. d'Eur.* v. 50, pl. 181, f. 233; pl. 182, f. 233.

Phalæna-Bombyx castrensis, *Linn. Syst. Nat.* i, 2, 818, 36. *Faun. Suec.* 813. *Gmel. ed. Syst. Nat.* i. 5, 2415, 26. *Berk. Sym.* i. 135. *Stew. El. Nat. Hist.* ii. 148. *Donov. Nat. Hist. Brit. Ins.* iii. 61, pl. 95. *Turt. Syst. Nat.* iii. 205.

Phalæna-Bombpx castrensis, var., *Linn. Faun. Suec. ed.* 2, 292, 1102.

Bombyx castrensis, *Fabr. Sp. Ins.* ii. 181, 59; *Mant. Ins.* ii. 115, 71; *Ent. Syst.* iii. 1, 432, 80. *Wien. Verz.* 57, 5. *Schr. Faun. Boic.* ii. 1, 279, 1466. *Oliv. Enc. Méth.* v. 54, 109. *Illig. N. Ausg. dess.* i. 117, 5. *Hübn. Bomb.* 145, 2, pl. 40, f. 177, 178; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, Q. a. b. f. 2. *Schæff. Icon. Nom. Panz.* 181. *Esp. Schmett.* iii. 147, pl. 28, f. 1—7. *Borkh. Eur. Schmett.* iii. 107, 29; *Rhein. Mag.* i. 369, 227. *Fuessl. Schw. Ins.* 34, 654; *N. Mag.* ii. 335, 147; iii. 2, 148, 51; 157, 124. *Hufnagel, Tab. im Berl. Mag.* ii. 4, 402, 10; 433, 1. *Schr. Faun. Boic.* ii. 1, 279, 1466. *Vieweg. Tab. Verz.* i. 37, 17. *Lang. Verz.* ii. 104, 802, 803. *Brahm, Ins. Kal.* 337, 224. *Schwarz, Raup.* 82, 220. *God. Lép. de France*, iv. 142, pl. 13, f. 5, 6, 376. *Boisd. Gen. et Ind. Méth.* 69, 564. *Zett. Ins. Lapp.* 925, 4. *Duponch. Suppl. God. Lép. de France*, iv. pl. 13, f. 2.

Bombyx Neustrius, *Haw. Lep. Brit.* 129.

Lasiocampa castrensis, *Schr. Faun. Boic.* ii. 2, 155, 16. *Klug, Herm. Meig. Syst. Beschr. Eur. Schmett.* ii. 206, 16, pl. 79, f. 10; *Handb.* 137, 84.

Malacosoma castrensis, *Hübn. Verz. Schmett.* 192, 1973.

Gastropacha castrensis, *Ochs. Schmett. von Eur.* iii. 294, 24. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 105, 14.

Bombyx castrensis, *var.* taraxcöides, *Bellier de la Chavignerie, Ann. Soc. Ent. Fr. 2me Sér.* ix. 101, pl. 4, No. 1.

a. Isle of Sheppey. Presented by T. Ingall, Esq.
b—r. England. From Mr. Stephens' collection.
s, *t*. Europe. From M. Becker's collection.
u, Europe. From Mr. Milne's collection.
v—x. Europe. Presented by J. G. Children, Esq.

2. Clisiocampa Neustria.

Pallide ochracea aut ferruginea ; alæ anticæ strigis duabus transversis fuscis, lateribus aversis plerumque pallidius cinctis.

——— ———, *Geoffr. Ins.* ii. 114, 16. *Albin, Ins.* 19, f. 27. *Frisch. Ins.* i. 10, pl. 2, f. 1—6. *Réaum. Ins.* ii. pl. 4, f. 1—11. *Göed. Ins.* i. pl. 10. *List. Göed.* pl. 89. *Blank. Ins.* 48, pl. 8, f. 1, M. *Rai, Ins.* ii. 214, 8. *Schæff. Icon.* pl. 209, f. 1, 2; pl. 215, f. 1, 2. *Roës. Ins.* i. 2, 41, pl. 6, f. 1—7. *Pap. d'Eur.* v. 27, pl. 180, f. 232.

Phalæna Bombyx Neustria, *Linn. Syst. Nat.* i. 2, 818, 34 ; *Faun. Suec. ed.* 2, 292, 1102. *Gmel. ed. Syst. Nat.* i. 5, 2414, 35.

Phalæna Pyri, *Scop. Ent. Carn.* 199, 498.

Bombyx Neustria, *Fabr. Sp. Ins.* ii. 180, 58; *Mant. Ins.* ii. 114, 70; *Ent. Syst.* iii. 1, 432, 79. *Wien. Verz.* 57, 3. *Müll. Faun. Fridr.* 39, 350; *Zool. Dan.* 118, 1358. *Oliv. Enc. Méth.* v. 53, 108. *Schr. Faun. Boic.* ii. 1, 279, 1465. *Illig. N. Ausg. dess.* i. 116, 4 ; *Mag.* ii. 56. *Hübn. Bomb.* 144, 1, pl. 40, f. 179, 180; *Larv. Lep.* iii. *Bomb.* ii. *Veræ*, Q, a, b, f. 1, a—c. *Schæff. Icon. Nom. Panz.* 180, 183. *Wilkes, Nat. Hist.* pl. 45. *Donov. Nat. Hist.* iii. pl. 115. *Esp. Schmett.* iii. 143, pl. 27, f. 1—7. *Borkh. Eur. Schmett.* iii. 103, 28; *Rhein. Mag.* 368, 226, (a, B. N. vulgaris, b, B. N. Quercus). *Fuessl. Schweiz. Ins.* 34, 653 ; *N. Mag.* ii. 60, 35 ; iii. 2, 148, 52 ; 152, 82. *Hufnagel, Tab. im Berl. Mag.* ii. 4, 402, 11. *Vieweg, Tab. Verz.* i. 37, 16. *Rossi, Faun. Etr.* ii. 170, 1079; *ed. Illig.* 273, 1079. *Lang. Verz.* ii. 104, 799. *Panz. Faun. Germ.* 23, 21. *Brahm, Ins. Kal.* 341, 226. *Schwarz, Raup* 81, 220. *Boisd. Gen. et Ind. Méth. Lep.* 69, 563; *God. Lép. de France*, iv. 137, pl. 13, f. 3, 4. *Zett. Ins. Lapp.* 926, 5.

Lasiocampa Neustria, *Schr. Faun. Boic.* ii. 2, 155, 15. *Méig. Syst. Beschr. Eur. Schmett.* ii. 297, 17, pl. 80, f. 1 ; *Handb.* 137.

Malacosoma Neustria, *Hübn. Verz. Schmett.* 192, 1974.

Gastropacha Neustria, *Ochs. Schmett. von Eur.* iii. 296, 25. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 105, 15.
Clisiocampa Neustria, *Steph. Ill. Brit. Ent. Haust.* ii. 47. *Westw. and Humph. Brit. Moths*, i. 50, pl. 10, f. 11, 12.
Var. Bombyx bilineatus, *Haw. Lep. Brit.* 130.
Var. Bombyx Neustria Quercus, *Esp. Schmett. Cont.* 35, pl. 6, f. 3.
Phalæna Neustria, *Abbot and Smith, Nat. Hist. Lep. Ins. Georgia*, ii. 117, pl. 59.
Malacosoma Diastria, *Hübn. Verz. Schmett.* 192, 1975.

a—y. England. From Mr. Stephens' collection.
z—hh. England.
ii. Europe. From M. Becker's collection.
jj—ll. Europe. From Mr. Milne's collection.

North America.

3. Clisiocampa decipiens.

Mas. *Cervina; antennæ albidæ, ramis fuscis; alæ ciliis ex parte albidis; anticæ fasciis duabus angustis obliquis albidis.*

Phalæna Castrensis, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 119, pl. 60.

Male. Fawn-colour. Antennæ whitish, with brown branches. Wings with partly whitish ciliæ. Fore wings with two slender oblique almost parallel whitish bands, the wings between them rather paler than elsewhere. Length of the body 5—6 lines; of the wings 10—12 lines.

a, b. Trenton Falls, New York. Presented by E. Doubleday, Esq.

4. Clisiocampa? americana.

Mas. *Antennæ valde pectinatæ; alæ exalbidæ, anticæ lituris costalibus nonnullis fuscis.*

Bombyx americana, *Fabr. Ent. Syst.* iii. 1, 433, 81.

North America.

5. Clisiocampa? tricolor.

Coccineæ; antennæ nigræ, pectinatæ; thorax niveus, punctis sex coccineis; alæ anticæ supra niveæ, costa coccinea strigaque media punctorum nigrorum.

Bombyx tricolor, *Fabr. Mant. Ins.* ii. 114, 69; *Ent. Syst.* iii. 1, 432, 77. *Oliv. Enc. Méth.* v. 53, 107.
Phalæna-Bombyx tricolor, *Gmel. ed. Syst. Nat.* i. 5, 2415, 500.

Cayenne.

6. Clisiocampa? Agresta.

Mas. *Ferruginea; alæ anticæ fasciis duabus, posticæ plaga antica albidis ex parte fusco marginatis.*

Phalæna-Bombyx Agresta, *Cram. Pap. Exot.* iv. 32, pl. 306, f. A.
Bombyx agrestis, *Oliv. Enc. Méth.* v. 52, 102.
Aselgia Agresta, *Hübn. Verz. Schmett.* 192, 1970.

Surinam.

Asia.

7. Clisiocampa Indica.

Fœm. *Pallide cervina; abdominis discus subcinereus; alæ anticæ testaceæ, costa, margine exteriore fasciisque duabus angustis perobliquis cervinis; posticæ cervinæ, fascia subobsoleta pallidiore.*

Female. Pale fawn-colour. Disk of the abdomen slightly cinereous. Fore wings testaceous, fawn-colour along two-thirds of the length of the costa and along the exterior border, and with two slender very oblique fawn-coloured bands. Hind wings fawn-colour, with a very indistinct paler middle band. Length of the body 7 lines; of the wings 16 lines.

East Indies. In Mr. Saunders' collection.

Australia.

8. Clisiocampa? Lewinæ.

Anus lanosus; alæ anticæ obscuræ fascia cinereo-cyanea lineisque tribus transversis nigris; posticæ fuscæ, maris fulvæ angulo ani emarginatæ, lineis duabus transversis fuscis. Larva *pilosa fusca lineis lateralibus duabus lineisque dorsalibus approximatis, flavis; caput nigrum, albo punctatum.*

Allied to *B. Mori.*

Bombyx Lewinæ, *Lewin, Prodr. Ent.* 7, pl. 6. *Boisd. Voy. de l'Astrol.* Pt. 1. *Lep.* 221, 2.

New Holland.

Genus 28. TACILLIA.

Mas et fœm. Corpus sat robustum. Palpi vix validi, caput paullo superantes. Antennæ thoracis longitudine. Abdomen alas posticas vix superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus minimis; alæ vix latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subconvexo sat obliquo. *Mas.*—Antennæ late pectinatæ? *Fœm.*—Antennæ subpectinatæ.

Male and female. Body rather stout. Palpi hardly stout, projecting a little beyond the head. Antennæ as long as the thorax. Abdomen extending full as far as the hind wings. Legs stout; hind tibiæ with two very minute apical spurs. Wings hardly broad. Fore wings straight in front, rounded at the tips, slightly convex and rather oblique, and very slightly denticulated along the exterior border; second inferior vein more than twice further from the third than from the first; third very much further from the fourth than from the second. *Male.*—Antennæ deeply pectinated? *Female.*—Antennæ slightly pectinated.

1. Tacillia delineata.

Mas et fœm. *Alba, luteo fuscoque varia; alæ anticæ apud venas luteæ, fasciis duabus latis nigro-fuscis, ciliis fusco guttatis.* Mas.—*Abdomen fasciis rufescentibus; alæ posticæ pallide fuscæ fascia alba.* Fœm.—*Alæ posticæ fascia pallide fusca.*

Male and female. White. Head luteous in front and at the base of each antenna. Palpi partly luteous and blackish brown. Antennæ with black branches. Legs black, with luteous bands; femora and tibiæ with white hairs beneath. Fore wings luteous along the costa and on the veins, pale brown along the costa and along the exterior border; a white brown-bordered discal dot on the border of the pale brown costal space; two broad blackish brown bands, the one basal and intersected by one zigzag white line, the second curved and very oblique, and intersected by two white zigzag lines, of which the exterior one is broader than the other; ciliæ white, with brown dots opposite the veins. Hind wings with ciliæ as in the fore wings. *Male.*—Abdomen with pale red dorsal bands. Hind wings very pale brown, with a slender white middle band. *Female.*—Abdomen with a reddish streak at the base. Hind wings with a more or less diffuse pale brown band. Length of the body 6—7 lines; of the wings 15—18 lines.

a. Australia. Presented by H. G. Harrington, Esq.
b, c. Australia. From Mr. Argent's collection.

Genus 29. ARTACE.

Corpus sat validum. Proboscis non conspicua. Palpi porrecti, pilosi, caput non superantes; articulus 3us minutus, conicus. Abdomen alas posticas paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ sat angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo. *Mas.*—Antennæ subpectinatæ, triente basali late pectinatæ. *Fœm.*—Antennæ mediocriter pectinatæ.

Body moderately stout. Proboscis obsolete. Palpi stout, porrect, pilose, not extending beyond the head; first joint short; third minute, conical. Abdomen extending a little beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings rather narrow. Fore wings straight in front, rounded at the tips, very oblique along the exterior border; interior angle somewhat rounded and very obtuse; first and second inferior veins contiguous at the base; third about twice further from the fourth than from the second. *Male.*—Antennæ rather deeply pectinated to beyond one-third of their length, slightly pectinated from thence to the tips. *Female.*—Antennæ moderately pectinated.

North America.

1. ARTACE PUNCTISTRIGA.

Mas. *Alba; tarsi nigro fasciati; pedes antice e pilis longis densissime vestiti; alæ anticæ e guttis nigris quadrifasciatæ, posticæ macula transversa fuscescente.*

White. Antennæ with tawny branches. Tarsi with black bands. Fore legs very thickly clothed with long hairs. Fore wings with four oblique bands of black dots on the veins; these bands form each an angle near the costa, and there the dots are largest, and the space between them is occasionally blackish; a row of black dots (which are occasionally obsolete) between the veins on the exterior border. Hind wings with a transverse more or less indistinct brownish mark near the interior angle. Length of the body 8—10 lines; of the wings 16—24 lines.

a—f. Georgia.

2. ARTACE ALBICANS.

Alba; palpi rosei, basi nigricantes; pedes nigro fasciati; tibiæ anticæ ex parte roseo hirtæ; alæ apud marginem exteriorem nigro guttatæ, anticæ e guttis nigris quadri aut quinque fasciatæ.

White. Palpi rose-colour, blackish towards the base. Antennæ with brown branches. Legs with black bands. Fore tibiæ partly clothed with rosy hairs. Wings with a row of black dots between the veins on the exterior border, near which there is a parallel row of brownish dots. Fore wings with a rosy tinge towards the base of the costa; veins with black dots, which form four or five oblique bands. Length of body 5—6 lines; of the wings 12—16 lines.

a—g. Georgia?

3. ARTACE PUNCTIVENA.

Mas. *Fulva; tarsi intermedii nigri, testaceo fasciati; alæ anticæ e guttis nigris quinque fasciatæ, posticæ fascia interrupta submarginali cinerascente.*

A. albicans, *var.* ?

Male. Tawny, shining, paler beneath. Middle tarsi black, with testaceous bands. Fore wings with five oblique bands of black dots; the dots on the veins, with the exception of those of the exterior marginal band which are between the veins. Hind wings with an indistinct interrupted submarginal grayish band. Length of the body 6 lines; of the wings 12 lines.

a. ——— ?

Africa.

Group 1.

Mas. Corpus robustum. Palpi brevissimi. Antennæ mediocriter pectinatæ, thorace paullo longiores. Abdomen alas posticas non superans.

Male. Body stout. Palpi very short, not extending so far as the head. Antennæ moderately pectinated, a little longer than the thorax. Abdomen extending as far as the hind wings. Legs rather slender. Wings hardly broad. Fore wings hardly acuminated at the tips; first and second inferior veins nearly contiguous at the base; third remote.

4. ARTACE ? BIFASCIA.

Mas. *Alba; antennæ ramis fulvis; pectus et pedes ex parte fuscescentia; alæ anticæ fasciis duabus fuscis, 1a basali, 2a obliqua discali.*

Male. White. Antennæ with tawny branches. Pectus brownish in front. Legs partly brownish. Fore wings with two brown bands; the first basal; the second oblique, across the end of the discal areolet, dilated in front. Length of the body 6 lines; of the wings 16 lines.

a. South Africa. Presented by Dr. A. Smith.

Genus 30. OCHA.

Mas. Corpus sat robustum. Proboscis non conspicua. Palpi validi, porrecti, pilosi, caput sat longe superantes; articulus 3us parvus, obtusus. Antennæ mediocriter pectinatæ, thorace non breviores. Abdomen alas posticas vix superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latiusculæ; anticæ apud costam vix convexæ, apice subrotundatæ, margine exteriore subobliquo vix convexo.

Male. Body moderately stout. Proboscis not visible. Palpi stout, porrect, pilose, extending rather beyond the head; third joint short, obtuse. Antennæ moderately pectinated, full as long as the thorax. Abdomen extending very little beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings rather broad. Fore wings hardly convex in front, slightly rounded at the tips, hardly convex and slightly oblique along the exterior border; first and second inferior veins springing from a common petiole at some little distance beyond the discal areolet; third remote.

West Indies.

1. OCHA ALBIDA.

Mas. *Albida; antennæ testaceæ; alæ anticæ fasciis nonnullis angustis angulatis fuscis, posticæ fusco subtinctæ.*

Male. Injured. Whitish. Antennæ with testaceous branches. Fore wings with some slender angular brownish bands, which are slightly flecked with black. Hind wings slightly tinged with pale brown. Length of the body 6 lines; of the wings 10 lines.

a. St. Domingo. From Mr. Stevens' collection.

South America.

2. Ocha plagiata.

Mas. *Obscure cervina; alæ anticæ fasciis nonnullis obliquis angulosis perangustis maculaque discali nigro-fuscis albidoque signatæ.*

Male. Dull fawn-colour. Fore wings with several oblique zigzag very slender blackish brown bands, and with a blackish brown discal spot, also with some slight minute whitish marks. Hind wings rather brighter, with a short band by the fore part of the exterior border. Length of the body 6 lines; of the wings 12 lines.

a. Brazil. From Mr. Stevens' collection.

3. Ocha? Bibiana.

Ferruginea; alæ anticæ macula discali, strigis duabus costalibus ante apicalibus, fasciis tribus basalibus duabusque exterioribus arcuatis nigris.

Phalæna-Bombyx Bibiana, *Cram. Pap. Exot.* iv. 134, pl. 359, f. D.
Lasiocampa Bibula, *Hübn. Verz. Schmett.* 189, 1947.

Surinam.

Genus 31. PHYLLALIA.

Fœm. Corpus mediocriter robustum. Proboscis non conspicua. Palpi graciles, caput sat longe superantes; articulus 3us linearis, acuminatus, 2o brevior. Antennæ usque ad apices subpectinatæ, thorace paullo longiores. Pedes sat graciles; tibiæ posticæ calcaribus duobus longiusculis apicalibus. Alæ longiusculæ, sat latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo vix convexo; posticæ abdomen vix superantes.

Female. Body moderately stout. Proboscis not visible. Palpi slender, extending some distance beyond the head; third joint linear, acuminated, shorter than the second. Antennæ minutely pectinated to the tips, a little longer than the thorax. Abdomen extending nearly as far as the hind wings. Legs rather slender; hind tibiæ with two rather long apical spurs. Wings rather long and broad. Fore wings straight in front, rounded at the tips, hardly convex and rather oblique along the exterior

border; second inferior vein full thrice further from the third than from the first.

This genus seems to partake of the characters of the *Liparidæ*.

1. PHYLLALIA CONCOLOR.

Fœm. *Pallide cervina; alæ subvestitæ, corpore paullo pallidiores.*

Female. Pale fawn-colour. Body a little darker than the wings, which are thinly clothed. Length of the body 10—12 lines; of the wings 32—36 lines.

a, b. Cape. From M. Dregé's collection.

Genus 32. DRYOCAMPA.

Corpus robustum. Proboscis non conspicua. Papli brevissimi. Antennæ thorace breviores. Abdomen alas posticas vix superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ mediocriter latæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore perobliquo vix convexo. *Mas.*—Antennæ latissime pectinatæ, plus triente apicali subserratæ. *Fœm.*—Antennæ simplices.

Dryocampa, *Harris, Hitchcock's Report on the Geology, &c., of Massach.; Westw.*
Phalæna-Bombyx, p., *Drury; Gmel.*.
Bombyx, p., *Fabr.; Oliv.*
Phalæna, p., *Abbot and Smith.*
Anisota, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Trichodæ Elongatæ*), 192.
Aidos? *Hübn. Verz. Schmett.* (*Phalænæ Veræ Trichodæ Hebescentes*), 191.

Body stout. Proboscis not visible. Palpi very short. Antennæ shorter than the thorax. Abdomen hardly extending beyond the hind wings. Legs stout; hind tibiæ with two minute apical spurs. Wings moderately broad, thinly pilose. Fore wings straight along the costa, acuminated at the tips, hardly convex and very oblique along the exterior border; second inferior vein nearly twice further from the third than from the first. *Male.*—Antennæ very deeply pectinated to much beyond half the length, minutely serrated from thence to the tips. *Female.*—Antennæ simple.

North America.

1. Dryocampa stigma.

Fœm. *Lutea; alæ fulvæ; anticæ nigro conspersæ, macula discali alba fasciaque perobliqua purpureo-fusca; posticæ fascia purpurascente.*

Bombyx stigma? *Fabr. Sp. Ins.* ii. 176, 40; *Mant. Ins.* ii. 112, 48; *Ent. Syst.* iii. 1, 424, 54. *Oliv. Enc. Méth.* v. 42, 69.
Phalæna-Bombyx stigma, *Gmel. ed. Syst. Nat.* i. 5, 2411, 497.
Phalæna stigma, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 111, pl. 56.
Anisota stigma, *Hübn. Verz. Schmett.* 193, 1978, 56.

Luteous. Antennæ and wings tawny. Fore wings minutely and sparingly flecked with black, with a small round white spot in the discal areolet, and with a purplish brown very oblique band, which extends from very near the tip of the costa to three-fifths of the length of the interior border; the wing between this band and the exterior border is slightly tinged with purple, and the discal spot has a purplish border. Hind wings with a purplish discal band, which is more oblique than that of the fore wings.

United States. Rio Janeiro.

a—d. Georgia. From Mr. Abbot's collection.
e. Georgia. From Mr. Milne's collection.

2. Dryocampa Virginiensis.

Alæ cervinæ, anticæ puncto parvo discali albo, fasciaque obliqua pallidiore.

Dryocampa Virginiensis, *Westw. Drury*, ii. 24, pl. 13, f. 2.
Phalæna (Bombyx) Virginiensis, *Drury, Ins. Exot.* ii. 23, pl. 13, f. 2. *App.* ii.
Phalæna pellucida, *Abbot and Smith, Ins. Georg.* ii. 115, pl. 58.
Bombyx Astynome, *Oliv. Enc. Méth.* v. 43, 73.
Anisota pellucida, *Hübn. Verz. Schmett.* 193, 1977, 58.

a—c. Georgia. From Mr. Milne's collection.

3. Dryocampa senatoria.

Lutea; alæ fascia angusta obliqua obscuriore, anticæ gutta discali alba. Mas.—*Alæ ferrugineæ.*

Phalæna senatoria, *Abbot and Smith, Nat. Hist. Lep. Ins. Georgia*, ii. 113, pl. 57.
Anisota senatoria, *Hübn. Verz. Schmett.* 193, 1979.
Georgia.

South America.

Group 1.

4. DRYOCAMPA RUBICUNDA.

Fœm. *Flava; palpi pedesque rosei; antennæ basi roseæ; alæ apud margines roseæ.*

Bombyx rubicunda, *Fabr. Ent. Syst.* iii. 1, 429, 69.

Female. Yellow. Palpi and legs mostly rose-colour. Antennæ rose-colour at the base. Fore wings of a delicate bright rose-colour about the base and on the costa, and along the exterior border. Hind wings rose-colour along the costa and along the apical part of the interior border. Length of the body 7—8 lines; of the wings 22—24 lines.

Var. β. Hind wings with a broad pale marginal rose-coloured band extending from near the tip of the costa to half the length of the interior border.

a, *b*. Brazil.

Group 2.

Fœm. Corpus dense lanuginosum. Antennæ graciles, subserratæ, thorace vix longiores. Abdomen alas posticas vix superans. Pedes tarsis longe pilosis, apice fasciculatis. Alæ angustæ, subpilosæ, semihyalinæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore perobliquo.

Female. Body thickly clothed with lanuginose hairs. Antennæ slender, minutely serrated, hardly longer than the thorax. Abdomen extending very little beyond the hind wings. Tarsi clothed with long hairs, their tips tufted. Wings narrow, slightly hairy, semihyaline. Fore wings more thickly hairy towards the base, very slightly convex along the costa, rounded at the tips, extremely oblique along the exterior border, very much longer than the hind wings; second inferior vein full twice further from the third than from the first; third as far from the second as from the fourth.

5. Dryocampa? decolor.

Fœm. *Pallide cervina; pedes ex parte nigro hirti; alæ anticæ maculis duabus discalibus unaque subapicali albidis.*

Female. Pale fawn-colour. Legs partly clothed with blackish hairs. Fore wings with three whitish marks, one on the discal areolet, the second subapical and less distinct, the third by the tip of the discal areolet. Hind wings a little paler than the fore wings. Length of the body 7 lines; of the wings 22 lines.

Rio Janeiro. In Mr. Fry's collection.

6. Dryocampa? Amanda.

Mas et fœm. *Fusca; thorax antice albo fasciatus; abdomen rufum; alæ anticæ albidæ fusco conspersæ necnon basi et posticæ fusco variæ, guttis submarginalibus nigris.* Mas.—*Alæ anticæ fascia exteriore fusca; posticæ albidæ fusco venosæ, basi et apud marginem interiorem rufæ.* Fœm.—*Alæ anticæ fascia exteriore nigricante; posticæ basi et apud marginem exteriorem late rufæ.*

Phalæna-Bombyx Amanda, *Cram. Pap. Exot.* iv. 186, pl. 393, f. C. D.

Aidos Amanda, *Hübn. Verz. Schmett.* 191, 1962.

Surinam.

Genus 33. ADELOCEPHALA.

Corpus crassum. Proboscis non conspicua. Palpi brevissimi. Antennæ thorace breviores. Thorax lineis e pilis elevatis duabus. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ plus minusve angustæ; anticæ apud costam vix convexæ, apice acuminatæ, margine exteriore plus minusve obliquo. *Mas.*—Antennæ late pectinatæ, dimidio apicali simplices. Abdomen alas posticas longe superans. *Fœm.*—Antennæ simplices. Abdomen alas posticas non aut vix superans.

Adelocephala, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* i.

Body thick, with short hairs. Proboscis not visible. Palpi very short, not extending so far as the head. Antennæ shorter than the thorax. Legs stout, slightly pilose; hind tibiæ with two very minute apical spurs. Wings more or less long and narrow. Fore

wings hardly convex in front, more or less acuminated at the tips; exterior border more or less convex and oblique; second inferior vein more than twice further from the third than from the first. *Male.*—Antennæ deeply pectinated; apical half simple. Abdomen extending far beyond the hind wings. *Female.*—Antennæ simple. Abdomen not or hardly extending beyond the hind wings.

1. Adelocephala Cadmus.

Ferruginea; thoracis latera purpurascentia; alæ anticæ strigis plurimis fuscis, gutta discali nigra, basi fasciisque duabus purpurascentibus; posticæ rufæ, fascia fusca, apud margines ferrugineæ.

Adelocephala Cadmus, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* i. pl. 17, f. 77, 78.

Large. Ferruginous. Thorax purplish on each side. Fore wings with numerous slight brown marks and with a white discal dot, purplish at the base and with two purplish bands; first band upright, near the base, with which it includes a greenish interval; second band very oblique, extending from the tip to nearly half the length of the interior border. Hind wings red, ferruginous towards the border, with an intermediate brown band. *Male.*—Wings more angular than those of the female. Fore wings darker and more pointed. *Female.*—Band of the hind wings incomplete.

Brazil.

2. Adelocephala anthonilis.

Fœm. *Cinereo-fusca; alæ fascia latissima albido-fusca, anticæ fasciis duabus angustis fuscis; posticæ fascia gracili arcuata discali fusca.*

Adelocephala anthonilis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* i. pl. 17, f. 79.

Female. Grayish brown. Each wing with a very broad whitish brown band. Fore wings with two slender brown bands; the first oblique, straight, near the base; the second more oblique, hardly undulating, extending from near the tip of the costa to one-third of the length of the interior border. Hind wings with a slender curved discal brown band.

a—c. Brazil. From M. Becker's collection.

3. Adelocephala brevis.

Fœm. *Cervina; antennæ testaceæ; alæ extus obscure viridi-cervinæ, fascia recta angusta perobliqua nigricante intus diffuse albido marginata; anticæ fascia basali obliqua venisque nigricantibus, striga transversa discali subobsoleta obscura.*

Female. Fawn-colour, slightly tinged with lilac. Antennæ testaceous. Wings very indistinctly tinged with green exteriorly; a very oblique and slender blackish band, diffusedly bordered with white on the inner side. Fore wings with a blackish band near the base, less oblique than the other one, which converges towards it; veins blackish; an indistinct short transverse dark discal streak. This species may be distinguished from *A. anthonilis* by its shorter and broader fore wings, which are consequently less oblique along the exterior border. Length of the body 12 lines; of the wings 32 lines.

a. Brazil. From M. Becker's collection.

Group 2.

Mas. Corpus robustum. Palpi brevissimi. Antennæ sat late pectinatæ, apices versus nudæ. Abdomen alas posticas vix superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ sat latæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore parum obliquo; posticæ apud costam dilatatæ.

Male. Antennæ rather deeply pectinated to somewhat beyond half the length, bare from thence to the tips. Wings moderately broad. Fore wings nearly rectangular, but somewhat rounded at their tips, very slightly oblique along the exterior border, which forms a continuous even curve with the interior border; second inferior vein about four times further from the third than from the first; fourth remote, springing from near the base of the wing. Hind wings dilated and very convex along the basal half of the costa; the subcostal vein with a corresponding curve.

4. Adelocephala jucunda.

Mas. *Cervino-purpurascens, subtus flavo-albida; caput flavo-albidum; antennæ fulvæ; thorax postice et abdomen vitta brevi lutea; pedes subtus albi; alæ anticæ vitta angusta subarcuata nigricante, fasciis tribus posticis diffusis purpureis; posticæ albido ciliatæ, subtus flavo-albidæ.*

Male. Purplish fawn colour. Head and under side of the body and of the hind wings yellowish white. Antennæ tawny. A short luteous streak on the hind part of the thorax and on the adjoining part of the abdomen. Legs white beneath. Fore wings with a slender slightly curved blackish band, which extends from the base through the disk to the tip; behind it there are three diffused oblique purple bands; under side sprinkled with pale yellow towards the exterior border. Hind wings with whitish ciliæ. Length of the body 8 lines; of the wings 20 lines.

a. Brazil. From Mr. Mornay's collection.

Genus 34. PHÆDRIA.

Mas. Corpus robustum, pilosum. Palpi porrecti, caput non superantes; articulus 3us parvus, acuto-conicus. Antennæ subpectinatæ, thoracé breviores, dimidio fere basali sat late pectinatæ. Abdomen alas posticas non superans. Pedes validi, pilis longis vestiti; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ sat angustæ; anticæ apud costam rectæ, apice vix angulatæ, margine exteriore perobliquo.

Male. Body stout, pilose. Palpi porrect, extending as far as the head; first joint short; third small, acute-conical. Antennæ shorter than the thorax, rather deeply pectinated to nearly half the length, slightly pectinated from thence to the tips. Abdomen extending as far as the hind wings. Legs stout, with long hairs; hind tibiæ with two minute apical spurs. Wings rather narrow. Fore wings straight along the costa, hardly angular at the tips, very oblique along the exterior border; first and second inferior veins contiguous at the base; third very remote; fourth springing from near the base of the wing.

1. PHÆDRIA MODERATA.

Mas. *Nigro-cinerea; corpus subferrugineum; antennæ pedesque fulva; alæ anticæ cano bifasciatæ, antice nigro notatæ; posticæ cano unifasciatæ.*

Male. Blackish gray. Body slightly ferruginous. Antennæ and legs tawny, the latter with blackish gray hairs. Fore wings blackish about the tip of the discal areolet and along the adjoining part of the costa; two oblique hoary bands, the first at three-fourths of the length of the wing, rather broader and paler than the second,

which is submarginal. Hind wings with one band, corresponding to the inner one of the fore wings. Length of the body 8 lines; of the wings 18 lines.

Rio Janeiro. In Mr. Fry's collection.

Genus 35. SUANA.

Mas et fœm. Corpus crassum. Proboscis non conspicua. Palpi porrecti, capite plus duplo longiores; articulus 3us lanceolatus, 2i longitudine. Antennæ serratæ, thorace breviores. Abdomen subfusiforme, alas posticas fere dimidio superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longæ, angustæ; anticæ acuminatæ, antice convexæ, margine exteriore perobliquo subrecto. *Mas.*—Abdomen gracilius. Alæ latiores. *Fœm.*—Abdomen magis incrassatum. Alæ angustiores.

Male and female. Body thick. Proboscis not visible. Palpi porrect, more than twice the length of the head; second joint longer than the first; third lanceolate, as long as the second. Antennæ simple, shorter than the thorax. Abdomen subfusiform, extending for nearly half its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings long and narrow. Fore wings acuminated, convex in front, nearly straight and extremely oblique along the exterior border; second inferior vein about twice further from the third than from the first; third very much further from the fourth than from the second. *Male.*— Abdomen more slender and wings broader than in the female.

1. Suana ampla.

Mas et fœm. *Ferruginea; palpi ex parte antennæque cinerea; alæ anticæ fasciis nonnullis angustis obliquis undulosis fuscescentibus maculaque basali albida; posticæ paullo pallidiores, fascia subtus subobsoleta obscuriore.* Mas.— *Alæ anticæ macula parva discali alba.*

Male and female. Ferruginous. Palpi partly cinereous. Antennæ cinereous. Fore wings with several narrow oblique undulating brownish bands; a whitish spot at the base; under side without bands, with the exception of a broad one along the exterior border. Hind wings a little paler than the fore wings; under side with a single indistinct straight very oblique band across the disk. *Male.* —Fore wings with a small transverse white discal spot. Length of the body 18 lines; of the wings 46 lines.

a. Silhet. From the Rev. J. Stainforth's collection.
b. Java. From the East India Company's collection.
c. Philippine Islands. From Mr. Cuming's collection.

Genus 36. SYSSISPHINX.

Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ thorace breviores. Pedes robusti; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longiusculæ, sat angustæ; anticæ apud costam vix convexæ, apice acuminatæ, margine exteriore perobliquo. *Mas.* — Antennæ latissime pectinatæ, dimidio apicali serratæ. Abdomen alas posticas paullo superans. Alæ anticæ margine exteriore undulato subangulato. *Fœm.*—Antennæ simplices. Abdomen alas posticas non superans. Alæ anticæ margine exteriore subconvexo.

Syssisphinx, *Hübn. Verz. Schmett.* 143.
Phalæna-Bombyx, p., *Cramer.*

Body thick. Proboscis not visible. Palpi extremely short, not extending near so far as the head. Antennæ shorter than the thorax. Legs thick; hind tibiæ with two very minute apical spurs. Wings somewhat long, rather narrow. Fore wings hardly convex in front, slightly acuminated at the tips, very oblique along the exterior border; second inferior vein about twice further from the third than from the first. *Male.*—Antennæ very deeply pectinated for half the length from the base, serrated from thence to the tips. Abdomen extending a little beyond the hind wings. Fore wings slightly undulating and angular along the exterior border. *Female.*—Antennæ simple. Abdomen extending as far as the hind wings. Fore wings slightly convex along the exterior border.

1. Syssisphinx Molina.

Cervina; alæ anticæ fasciis duabus obliquis fuscis maculaque subtus nigra; posticæ roseæ macula discali nigra, fascia exteriore ferruginea, margine exteriore late cervino. Mas.—*Alæ anticæ plaga postica marginali subpurpurea.*

Phalæna-Bombyx Molina, *Cram. Pap. Exot.* iv. 25, pl. 302, f. E, F. (Fœm.), 221, pl. 396, f. B. (Mas).
Syssisphinx Molina, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Dimorphæ Hybrides*), 143, 1525.

Surinam.

a, *b*. Brazil. From M. Becker's collection.
c. Rio Janeiro. From Mr. Stevens' collection.

Genus 37. NETRIA.

Fœm. Corpus robustum. Caput apud antennas bifasciculatum. Proboscis non conspicua. Palpi breves, porrecti, caput non superantes. Antennæ late pectinatæ, apice nudæ, thorace paullo longiores. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ longæ, angustæ; anticæ apud costam subconvexæ, apice subacuminatæ, margine exteriore subrecto perobliquo; posticæ abdomen non superantes.

Female. Body thick. Head with a tuft on each side by the base of the antennæ. Proboscis not visible. Palpi porrect, not extending so far as the head; third joint short, conical. Antennæ deeply pectinated, bare at the tips, a little longer than the thorax. Abdomen extending as far as the hind wings. Legs stout, pilose; hind tibiæ with two moderately long apical spurs. Wings narrow, rather long. Fore wings slightly convex in front, slightly acuminated at the tips, nearly straight and extremely oblique along the exterior border, clothed with long hairs beneath towards the costa; second inferior vein about thrice further from the third than the first.

1. NETRIA VIRIDESCENS.

Fœm. *Fusca, subtus fusco-albida; antennæ ferrugineæ; alæ anticæ obscure virides, linea undulosa marginali fusca fasciisque duabus fusco-viridibus fusco marginatis, 1a basali angusta, 2a discali latissima.*

Female. Brown, mostly whitish beneath, except towards the borders of the wings. Antennæ ferruginous. Fore wings dull green, slightly sprinkled with brown, and with two more thickly brown-sprinkled brown-bordered bands, with undulating borders; first narrow, near the base; the second in the disk, extremely broad; an undulating brown line along the exterior border. Length of the body 10 lines; of the wings 34 lines.

a. Java. From the East India Company's collection.

Genus 38. BOMBYX.

Corpus crassum. Proboscis obsoleta. Palpi brevissimi, vix conspicui. Antennæ late pectinatæ, thorace longiores. Abdomen alas posticas superans. Pedes robusti, pilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ vix latæ; anticæ falcatæ, apud costam subrectæ, margine exteriore undulato perobliquo.

Bombyx, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Eutrichæ Simulatæ*), 190.
Phalæna-Bombyx, p., *Linn.; Gmel.*
Bombyx, p., *Fabr.; Scop.; Oliv.; God.*
Sericaria, *Latr.; Blanch.*

Body thick. Proboscis obsolete. Palpi very short, hardly visible. Antennæ deeply pectinated, longer than the thorax. Abdomen extending beyond the hind wings. Legs robust, pilose; hind tibiæ with two very minute apical spurs. Wings hardly broad. Fore wings slightly falcate, almost straight along the costa, slightly undulating, and very oblique along the exterior border; second inferior vein rather remote from the first and about twice further from the third.

1. Bombyx Mori.

Alba. Fœm.—*Alæ anticæ fasciis nonnullis obliquis subobsoletis obscurioribus.*

The Silkworm.

———— ————, *Aldrov. Ins.* 280. *Mouff. Ins.* 181. *Jonst. Ins.* pl. 22. *Goëd. Ins.* i. pl. 42. *List. Goëd.* f. 32. *Albin, Ins.* pl. 12, f. 16. *Bradl. Nat.* pl. 27, f. 1. *Reaum. Ins.* ii. pl. 5, f. 2. *Röes. Ins.* iii. pl. 7, 8. *Ammir. Ins.* pl. 9. *Blank. Ins.* 60, pl. 9. *Merian, Ins. Eur.* i. pl. 1. *Trierr. Act. Stockh.* (1745) 253, pl. 14, f. 1. *Geoff. Ins. Par.* ii. 116, 18.

Phalæna-Bombyx Mori, *Linn. Syst. Nat.* ii. 817, 33; *Amœn. Acad.* 4, 563; *Faun. Suec.* 832. *Gmel. ed. Syst. Nat.* i. 5, 2413, 33.

Bombyx Mori, *Fabr. Sp. Ins.* ii. 180, 57; *Mant. Ins.* ii. 114, 68; *Ent. Syst.* iii. 1, 431, 76. *Scop. Ent. Carn.* 486. *Oliv. Enc. Méth.* v. 51, 98. *God. Lép. de France*, iv. 153, pl. 14, f. 3, 4. *Hübn. Verz. Schmett.* 191, 1960. *Helfer, Journ. Asiat. Soc. Bengal*, vi. 40, 1.

Sericaria Mori, *Blanch. Gay, Hist. de Chile, Zool.* vii. 55.

a—*c*. China.

2. Bombyx Huttoni.

Alæ anticæ falcatæ subcinereo-albidæ strigis nonnullis ante et pone medium obscurioribus alteraque submarginali pallidiore, plaga magna apicali nigricante; posticæ fuscæ venis pallidioribus strigaque curvata submarginali albida, margine anali albo obligue strigato.

Bombyx Huttoni, *Westw. Cab. Orient. Ent.* 26, pl. 12, f. 4.

Mussooree, East Indies.

3. Bombyx? religiosa.

Thorax fusco-cinereus, fascia postica nigra; alæ anticæ pallide cinereæ, apice obscuriores, fascia interrupta marginali plagaque apicali albidis; posticæ fuscæ. Fœm.—*Alæ brevissimæ.*

Bombyx religiosa, *Helfer, Journ. Asiat. Soc. Bengal.* vi. 41, 3, pl. 6.

"Size and structure of *B. Mori*. Thorax with brownish gray hairs; a black band separating the abdomen from the thorax. Fore wings light gray, darker towards the tips; an interrupted whitish band on the exterior border, and a large whitish apical spot. Hind wings brown. *Female*,—Wings rudimentary."

East Indies.

4. Bombyx?? lugubris.

Fœm. *Ferruginea; alæ anticæ costa fasciaque obliqua arcuata extus incisa ochraceis, strigis exterioribus subcyaneis; posticæ margine interiore ochraceo.*

Bombyx lugubris, *Drury, Exot. Ins.* iii. 28, pl. 21, f. 5. *App.* ii.; *ed. Westw.* pl. 21, f. 5.

Bombyx Penthica, *Hübn. Verz. Schmett.* 191, 1961.

Madras.

ADDENDA TO THE BOMBYCIDÆ.

Page 1404.

HYDRIAS TENEBROSA.

Mas. *Ferruginea; alæ nigro-fuscæ, anticæ venis fasciisque duabus duplicatis angulosis, lunula discali albida vittaque discali rufescente.*

Male. Ferruginous. Head beneath and pectus fawn-colour; fringe pale brown. Fore wings with a slender curved transverse whitish discal mark, and with two double zigzag fawn-coloured bands, the space between each pair rather paler than the wing elsewhere; veins fawn-colour. Length of the body 8 lines; of the wings 12 lines.

Brazil. In Mr. Saunders' collection.

PRINTED BY E. NEWMAN, 9, DEVONSHIRE STREET, BISHOPSGATE.

LIST

OF THE

SPECIMENS

OF

LEPIDOPTEROUS INSECTS

IN

THE COLLECTION

OF THE

BRITISH MUSEUM.

BY

FRANCIS WALKER, F.L.S.

PART VII.—LEPIDOPTERA HETEROCERA.

PRINTED BY ORDER OF THE TRUSTEES.
LONDON, 1856.

LONDON:
PRINTED BY EDWARD NEWMAN,
9, DEVONSHIRE STREET, BISHOPSGATE.

INTRODUCTION.

THE object of the present Catalogue has been to give a complete list of the specimens of Lepidopterous Insects contained in the collection of the British Museum, indicating at the same time the peculiarities of each, as regards variation of character, locality, and the source from whence it has been derived. With this view, the different individuals of each species contained in the collection are indicated by the letters *a*, *b*, *c*, &c., following the name of the species and its synonymes, and the description, if it appeared to have been before undescribed.

JOHN EDWARD GRAY.

British Museum,
May 1*st*, 1856.

CATALOGUE

OF

LEPIDOPTERA HETEROCERA.

PART VII.

Fam. 11. COSSIDÆ.

Corpus crassum. Antennæ capitis latitudine multo longiores. Proboscis brevissima aut nulla. Alæ anticæ aliter venosæ et infrenatæ, necnon majores ac posteriores, venis marginis interioris duabus. *Fœmina* alata. Larva sæpissime lignivora.

Cossides, *Herr.-Schæff.*
Hepialidæ, p., *Steph. Brit. Ent. Haust.* ii. 3.
Phalæna Fodicantes Terediues, *Hübn. Verz. Schmett.* 195.
Cossidæ et Zeuzeridæ, *Newman, Ent. Mag.* i. 68.
Phalænina Cossites, p., *Newman, Ent. Mag.* ii. 383.
Zeuzerides, *Boisd. Ind. Méth.* 75.

Synopsis of Genera.

A. Antennæ *maris* æqualiter pectinatæ aut serratæ.
A. Tarsi non fasciculati.
a. Alæ anticæ non falcatæ.
a. Palpi longi. - - - - - 3. Culama, *Walk.*
b. Palpi non longi.
i. Alæ anticæ apicé subrotundatæ.
* Antennæ subtus foliatæ. - 1. Cossus, *Fabr.*
** Antennæ *maris* bipectinatæ, *fœminæ* simplices.
2. Endagria, *Boisd.*
ii. Alæ anticæ apice valde rotundatæ.
4. Cossodes, *White.*
b. Alæ anticæ subfalcatæ.
a. Antennæ simplices. - - 9. Morpheis, *Hübn.*
b. Antennæ pectinatæ. - - 6. Langsdorfia, *Hübn.*
B. Tarsi fasciculati. - - - - 5. Givira, *Walk.*
B. Antennæ *maris* inæqualiter pectinatæ.
A. Antennæ *maris* apice nudæ. - - 7. Zeuzera, *Latr.*
B. Antennæ *maris* usque ad apices pectinatæ.
8. Phragmatæcia, *Newm.*

Genus 1. COSSUS.

Corpus crassum. Palpi sæpissime brevissimi, vix conspicui, nonnunquam mediocriter longi. Antennæ serratæ, aut pectinatæ, thorace longiores. Abdomen alas posticas plus minusve superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor parvis. Alæ longiusculæ, vix latæ; anticæ apud costam fere rectæ, apice rotundatæ, margine exteriore perobliquo. *Fœm.*—Oviductus conspicuus.

Cossus, *Fabr.*; *Latr.*; *Leach.*; *Ochs.*; *Samou.*; *Curt.*; *Steph.*; *Boisd.*: *Duponch.*; *Herr.-Schæff.*
Phalæna-Bombyx, p., *Linn.*; *Gmel.*
Phalæna-Noctua, p., *Linn.*
Papilio, p., *Lister*; *Albin.*
Phalæna-Cossus, *Turt.*
Phalæna, p., *Scop.*
Bombyx, p., *Fabr.*
Xyleutes et Hypopta, *Hübn. Verz. Schmett.* 195.
Cossus, p., *Ochs.*
Cossus et Cryptobia, *Boisd.*

Body very thick. Palpi generally very short, not visible, of moderate length in some species. Antennæ serrated or pectinated, longer than the thorax. Abdomen extending more or less beyond the hind wings. Legs stout, pilose; hind tibiæ with four short spurs. Wings rather long, hardly broad. Fore wings hardly convex along the costa, rounded at the tips, very oblique along the exterior border; first and second inferior veins almost contiguous at the base; third near the second and about thrice further from the fourth. *Female.*—Oviduct serrated.

The few species of this genus differ much from each other in the length of the palpi, in the antennæ and in other characters, but have great general mutual resemblance, and are therefore not divided from the genus of the typical species *C. ligniperda.*

Europe.

A. Cinerei.
  A. Caput et prothorax cinerea, hujus margo posterior albido-flavus.
    a. Statura major. - - - - ligniperda, *Fabr.*
    b. Statura minor. - - - - - teredo, *Boisd.*
  B. Caput et thorax nigricantia. - terebra, *Wien. Verz.*
B. Lateritii.
  A. Alæ anticæ plagiatæ. - - - - Thrips, *Hübn.*
  B. Alæ anticæ non plagiatæ. - - - Nonagrioides, *Lefeb.*
C. Albidi, nigro maculati. - - - - cœstrum, *Hübn.*

1. Cossus ligniperda.

Alæ albo-cinereæ, fusco nebulosæ, strigis transversis atris; thorax albidus, postice fascia atra, abdomen annulis albis.

Cossus ligniperda, *Fabr. Syst. Ent.* iii. 2, 3, 1. *Schæff. Nomencl. Panz.* 78. *Ochs. Schmett. von Eur.* iii. 90, 1. *God. Lép. de France*, iv. 47, pl. 3, f. 1. *Curt. Brit. Ent.* ii. pl. 60. *Meig. Syst. Beschr. Eur. Schmett.* ii. 185, 1, pl. 76, f. 1; *Handb.* 115, 27. *Steph. Ill. Brit. Ent. Haust.* ii. 9, 1. *Stark, El. Nat. Hist.* ii. 365. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 11, 1.

Phalæna-Bombyx Cossus, *Linn. Syst. Nat.* ii. 827; 63; *Faun. Succ. ed.* i. 812; 2, 1114. *Gmel. ed. Syst. Nat.* i. 5, 2431, 63. *Berk. Syn. Nat. Hist.* i. 138. *Donov. Nat. Hist. Brit. Ins.* iv. pl. 114. *Stew. El. Nat. Hist.* ii. 153.

Phalæna-Cossus Cossus, *Turt. Syst. Nat.* iii. 341.
Xyleutes Cossus, *Hübn. Verz. Schmett.* 195, 1995.
Phalæna Cossus, *Scop. Ent. Carn.* 200, 500. *Lyonet.*
Hepialus Cossus, *Schr. Faun. Boic.* ii. 1, 299, 1490.
——— ———, *Gron. Zooph.* 204, 837. *Göed. Ins.* ii. pl. 33. *List. Göed.* (Angl.) 49; (Lat.) 105, f. 39. *Mouff. Ins.* 196, f. 1. *Petiv. Gazoph.* pl. 51, f. 9. *Ray, Ins.* 150, 2; 351, 25. *Albin, Ins.* pl. 357, f. 56. *Réaum. Ins.* i. pl. 17, f. 1—5. *Merian, Ins. Eur.* pl. 36. *Geoffr. Ins.* ii. 102, 4. *Frisch, Ins.* vii. 1, pl. 1. *Roës. Ins.* i. 2, 113, pl. 18. *Réaum. Ins.* i. pl. 17, f. 1—5. *Lyonnett, Less.* pl. 1, f. 17—22. *Wilkes, Pap.* 15, pl. 2, a. 2. *Schæff. Icon.* pl. 61, f. 1, 2. *Deg. Ins.* ii. 1, 268, 1; 270. *Pap. d'Eur.* v. 63, pl. 189, f. 246; pl. 190, f. 246. *Sup.* pl. 8, f. 246.
Bombyx Cossus, *Fabr. Sp. Ins.* ii. 182, 65; *Mant. Ins.* ii. 116, 83. *Scop. Ent. Carn.* 500. *Wien. Verz.* 60, 1. *Oliv. Enc. Méth.* v. 57, 121. *Haw. Lep. Brit.* 89. *Illig. N. Ausg. dess.* i. 126, 1. *Hübn. Bomb.* 150, 2, pl. 46, f. 198; *Larv. Lep.* iii. *Bomb.* iii. *Teredines*, A, a, b, f. 1, a—c. *Esp. Schmett.* iii. 303, pl. 91, f. 1—6. *Müll. Faun. Fridr.* 40, 358; *Zool. Dan.* 119, 1372. *Fuessl. Schweiz, Ins.* 36, 678; *N. Mag.* ii. 60, 63. *Rossi, Faun. Etr.* ii. 170, 1080; *ed. Illig.* 273, 1080. *Vieweg, Tab. Verz.* i. 49, 37. *Borkh. Eur. Schmett.* iii. 357, 134; *Rhein. Mag.* i. 372, 233. *Hufnagel, Tab. im Berl. Mag.* ii. 4, 410, 24. *Lang. Verz.* ii. 107, 822, 823. *Schwarz, Raup.* 654, 755.

a—*i*. England. From Mr. Stephens' collection.
j. England. From Mr. Foxcroft's collection.
k—*m*. England.
n—*p*. Europe. From M. Becker's collection.
q. Europe.

2. Cossus terebra.

Cinereus; thorax postice striga albida; alæ dorso dentatæ, atomis strigisque undatis fusco-ferrugineis.

Bombyx terebra, *Fabr. Mant. Ins.* ii. 116, 84. *Wien. Verz.* 60, 2. *Oliv. Enc. Méth.* v. 58, 122. *Hübn. Bomb.* 150, 1, pl. 46, f. 197. *Illig. N. Ausg. dess.* i. 126, 2. *Esp. Schmett.* iii. *Cont. Bomb.* i. pl. 1, f. 1. *Fuessl. N. Mag.* ii. 4, 377. *Borkh. Eur. Schmett.* iii. 361, 135. *Schwarz, Raup.* 667, 756. *Duponch. Suppl. Lép. Fr.* 211, pl. 68, f. 2.
Phalæna-Bombyx terebra, *Gmel. ed. Syst. Nat.* i. 5, 2431, 555.

Cossus terebra, *Fabr. Ent. Syst.* iii. 2, 43. *Ochs. Schmett. von Eur.* iii. 92, 2. *Meig. Syst. Beschr. Eur. Schmett.* ii. 186, 2, pl. 76, f. 2; *Handb.* 116, 28. *Herr.-Schæff. Samml. Eur. Schmett. Text.* ii. 11, 2.

Hepialus terebra, *Schr. Faun. Boic.* ii. 1, 299, 1491.

——— ———, *Pap. d'Eur.* v. 68, pl. 190, f. 246.

Xyleutes terebra, *Hübn. Verz. Schmett.* 195.

a, *b*. Europe. From M. Becker's collection.

3. Cossus teredo.

Alæ albo-cinereæ, nebulosæ nigro strigosæ; thorax cinereus. Statura Ac. Psi; *facie consimilis* C. Ligniperdæ, *sed distinctissimus.*

Cossus teredo, *Boisd. Tabl. Méth. Lep. d'Eur.* 51.

Dalmatia.

4. Cossus cœstrum.

Alæ anticæ niveæ, macula sublunari fusca; posticæ albo-cinereæ.

Bombyx cœstrum, *Hübn. Bomb.* 151, 3, pl. 46, f. 199.

Cossus cœstrum, *Ochs. Schmett. von Eur.* iii. 94, 3. *Meig. Syst. Beschr. Eur. Schmett.* ii. 186, 3.

Hypopta cœstrum, *Hübn. Verz. Schmett.* 195, 2001.

a, *b*. Italy. From M. Becker's collection.

5. Cossus Thrips.

Cervinus; abdomen testaceum; alæ subobsolete signatæ, anticæ plaga discali fuscescente, posticæ testaceæ.

Bombyx Thrips, *Hübn. Bomb.* f. 265.

Hypopta Thrips, *Hübn. Verz. Schmett.* 199, 2000.

Cossus Thrips, *Duponch. Suppl. Lép. France*, 519, pl. 90, f. 1. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 11, 3.

Cossus Kindermannii, *Freyer, N. Beytr.* iii. 183, 1, pl. 113.

Cossus Fuchsianus, *Eversm. Nouv. Mem. Soc. Imp. Nat. Mosc.* ii. 352, pl. 2, f. 1.

a, *b*. Russia. From M. Becker's collection.

6. Cossus Nonagrioides.

Alæ anticæ flavescentes, margine exteriore vena media, serieque punctorum ad apicem nigricantibus; posticæ albidæ; antennæ pectinatæ.

Cossus Nonagrioides, *Lefebvre, MSS., Boisd. Tabl. Méth. Lep. d'Eur.* 51.

Sicily.

North America.

A. Alæ posticæ luteæ aut fuscæ. - - - Robiniæ, *Boisd.*
B. Alæ posticæ cinereæ.
A. Alæ anticæ margine exteriore subobliquo. Populi, *Barnston.*
B. Alæ anticæ margine exteriore perobliquo. plagiatus, *Walk.*

Group 1.

Mas et fœm. Corpus sat robustum. Antennæ longiusculæ. Abdomen alas posticas dimidio superans. Alæ anticæ apud costam subrectæ, apice rotundatæ. *Mas.*—Antennæ mediocriter pectinatæ. Alæ anticæ apud marginem exteriorem perobliquæ. *Fœm.*—Antennæ subpectinatæ. Alæ mediocriter latæ; anticæ apud marginem exteriorem sat obliquæ.

Male and female. Body rather stout. Antennæ rather long. Abdomen extending for half its length beyond the hind wings. Fore wings almost straight in front, rounded at the tips. *Male.*—Antennæ moderately pectinated. Wings narrow. Fore wings extremely oblique along the exterior border. *Female.*—Antennæ slightly pectinated. Wings moderately broad. Fore wings rather oblique along the exterior border.

7. Cossus Robiniæ.

Mas. *Obscure fusca; alæ anticæ nigra reticulatæ, vitta maculari discali nigra, margine interiore cano; posticæ pallide luteæ, dimidio basali costaque nigris.* Fœm.—*Cana, fusco varia; thorax nigro trivittatus; alæ anticæ nigro reticulatæ, strigis nonnullis discalibus et anterioribus nigris; posticæ fuscæ, nigro subreticulatæ, marginibus pallidioribus.*

Cossus Robiniæ, *Boisd. Ann. Soc. Ent. Fr. 2me Sér.* x. 323, 94.* *Herr.-Schæff. Lép. Exot. Sp. Sér.* i. f. 170, 171.

Male. Dark brown. Fore wings paler brown, hoary along the interior border, with irregular blackish reticulations, and with a discal blackish stripe composed of five large irregular spots. Hind wings pale luteous, black to about half the length from the base and along the costa. *Female.*—Hoary, shaded with pale brown. Thorax with three slender black stripes. Fore wings with irregular blackish reticulations, and with some discal and anterior black streaks. Hind wings brown, paler towards the margin, more indistinctly reticulated. Ciliæ with black dots.

California. Georgia.

Group 2.

8. Cossus Populi.

Fœm. *Cinereus; palpi nigri, caput non superantes; antennæ nigræ, subserratæ, thorace paullo longiores; pedes albido fasciati; alæ subreticulatæ, anticæ fasciis duabus perangustis nigricantibus, exteriore costam versus furcata.*

Very nearly allied to *C. ligniperda*, but smaller and somewhat different in the markings of the fore wings. *Female.*—Cinereous. Antennæ black, very minutely serrated, a little longer than the thorax. Palpi black, extending as far as the head. Legs with whitish bands. Wings slightly reticulated, with very numerous minute transverse blackish streaks. Fore wings with two very slender irregular blackish bands; one at beyond one-third of the length; the other subapical and forked in front. Length of the body 14 lines; of the wings 28 lines.

a. St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

9. Cossus plagiatus.

Mas. *Canus; palpi caput longitudine non adæquantes; thorax nigro bivittatus; tarsi cinerei, albido fasciati; alæ anticæ cinereo reticulatæ, plaga postica fasciaque subapicali fuscis cano guttatis; posticæ cinereæ, apud margines canæ cinereo reticulatæ.*

Male. Hoary. Palpi not extending so far as the head; third joint very minute. Thorax with a slender black stripe along the inner side of each scapula. Tarsi gray, with whitish bands. Fore wings mostly reticulated with gray, narrower and much more oblique along the exterior border than those of *C. Populi*; a brown patch with hoary dots on the middle of the interior border, and an

irregular subapical oblique band of the same hue. Hind wings gray, hoary and indistinctly reticulated with gray along the borders; fringe of the four wings whitish, with blackish intervals. Length of the body 11 lines; of the wings 28 lines.

a. United States. Presented by E. Doubleday, Esq.

West Indies?

10. Cossus cribrarius.

Niveus; thorax immaculatus, albidus; alæ punctis numerosis transversis, per fascias dispositis, nigris.

Cossus cribrarius, *Liung, Kongl. Vet. Acad. Handl.* 1825, 348, pl. 2, f. C.

West Indies?

South America.

A. Alæ posticæ luteæ. - - - - mucoreus, *Boisd.*
B. Alæ posticæ non luteæ.
A. Alæ anticæ ferrugineæ. - - - rubiginosus, *Boisd.*
B. Alæ anticæ non ferrugineæ.
a. Alæ anticæ basi nigro maculatæ.
a. Alæ anticæ subpurpurascentes. - cœstroides, *Boisd.*
b. Alæ anticæ non purpureo variæ.
i. Alæ pallidissime fuscescentes. - Ziliante, *Cram.*
ii. Alæ fuscæ. - - - - - Musæ, *Boisd.*
iii. Alæ obscure fuscæ. - - - æthiops, *Boisd.*
b. Alæ anticæ basi non maculatæ.
i. Abdominis latera ferruginea. - - lateralis, *Walk.*
ii. Abdominis latera non ferruginea. - guttata, *Drury.*

Group 1.

Fam. Corpus vix robustum. Antennæ thorace breviores. Abdomen longum, attenuatum, alas posticas plus dimidio superans. Alæ angustæ; anticæ apud costam rectæ, margine exteriore perobliquo, interiore undulato.

Female. Body hardly stout. Antennæ shorter than the thorax. Abdomen long, tapering, extending for two-thirds of its length beyond the hind wings. Wings narrow. Fore wings almost straight in front, rounded at the tips, extremely oblique along the exterior border, undulating along the interior border.

11. Cossus mucoreus.

Fœm. *Fuscus; alæ anticæ ferrugineæ, apud dimidium apicale nigro strigatæ, costa nigro transverse signata, vitta apud marginem interiorem nigra; posticæ luteæ marginibus nigricantibus.*

Cossus mucoreus, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 9, f. 39, (1853).

Fem. Brown. Fore wings ferruginous, with transverse black marks along the costa; apical half with black streaks, which diminish in size towards the tips; a longer and broader black stripe along the interior border. Hind wings luteous, blackish along the inner and outer borders.

Brazil.

Group 2.

Mas. Corpus mediocriter robustum. Antennæ pectinatæ, thorace breviores. Abdomen alas posticas plus dimidio superans. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo; posticæ apud marginem exteriorem vix excavatæ.

Male. Body moderately stout. Antennæ pectinated, shorter than the thorax. Abdomen extending for a little more than half its length beyond the hind wings. Wings moderately broad. Fore wings straight in front, rounded at the tips, rather oblique along the exterior border. Hind wings with the exterior border very indistinctly excavated.

12. Cossus rubiginosus.

Mas. *Fuscus; thorax subflavo-fuscus; alæ anticæ ferrugineo-rufæ, strigis transversis plurimis nigris; posticæ pallidiores, strigis fuscis, basi flavescentes.*

Cossus rubiginosus, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 39, f. 42, (1853).

Male. Brown. Thorax with a slight yellowish tinge. Fore wings ferruginous-red, with very numerous black transverse streaks. Hind wings paler, with brown streaks, yellowish at the base.

Group 3.

Mas? Corpus sat gracile. Antennæ pectinatæ, thorace non longiores. Abdomen alas posticas plus dimidio superans. Alæ sat angustæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Male? Body rather slender. Antennæ pectinated, not longer than the thorax. Abdomen extending for more than half its length beyond the hind wings. Wings rather narrow. Fore wings nearly straight in front, rounded at the tips, moderately oblique along the exterior border.

13. Cossus cœstroides.

Mas. *Fusca; thorax subpurpurascens; alæ anticæ albido-testaceæ, lituris costalibus et marginalibus obscurioribus, disco purpurascente, maculis basalibus et apud marginem interiorem nigris; posticæ pallidiores, maculis marginalibus.*

Cossus cœstroides, *Boisd.; Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 39, f. 41, (1853).

Male. Brown. Thorax with a purplish tinge. Fore wings whitish testaceous; marks along the costa and along the exterior border darker testaceous; disk purplish; two black spots near the base, and three or four along the interior border. Hind wings paler and somewhat spotted along the border.

Brazil.

Group 4.

Fœm. Corpus crassum. Antennæ thorace vix breviores. Abdomen alas posticas triente superans. Alæ longæ, mediocriter latæ; anticæ apud costam convexæ, apice rotundatæ, margine exteriore perobliquo, interiore undulato.

Female. Body thick. Antennæ hardly shorter than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Wings long, moderately broad. Fore wings somewhat convex in front, rounded at the tips, extremely oblique along the exterior border; interior border somewhat undulating.

14. Cossus Musæ.

Fusca; alæ nigro reticulatæ, maculis marginalibus nigris, anticæ plagis duabus pallide fuscis, posticæ apud marginem interiorem pallidiores.

Cryptobia Musæ, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér*, 1, f. 1650.

Female. Brown. Wings with numerous irregular black reticulations, which are wanting in some parts and confluent in others; a row of black spots along the borders. Fore wings with two very large pale brown spots, one in front of the middle of the wing, the other subapical. Hind wings paler along the exterior border.

Rio Grande.

Group 5.

Mas. Corpus vix robustum. Antennæ sat late pectinatæ. Abdomen alas posticas dimidio superans. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subobliquo.

Male. Body hardly stout. Antennæ rather deeply pectinated. Abdomen extending for half its length beyond the hind wings. Wings moderately broad. Fore wings straight in front, rounded at the tips, slightly oblique along the exterior border.

15. Cossus æthiops.

Mas. *Obscure fuscus; alæ punctis nigricantibus conspersæ, anticæ fasciis quatuor obliquis angustis nigricantibus, 1a 2aque abbreviatis, 3a furcata; posticæ apud costam pallidiores.*

Cossus? æthiops, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 172.

Male. Dark brown. Wings sprinkled with blackish points, which are most thick towards the base of the fore wings. Fore wings with four oblique slender blackish bands; first and second abbreviated in front; third forked in front at one-fourth of its length; fourth simple, entire, subapical. Hind wings paler along the costa.

South America.

16. Cossus lateralis.

Mas. *Cinereus, cano varius; palpi nigricantes, caput vix adæquantes; abdomen lateribus ventreque ferrugineis; pedes ex parte ferrugineo hirti; alæ anticæ canæ, gutta discali nigra fasciisque tribus subundulosis exterioribus cinereis; posticæ cinereæ.*

Male. Cinereous, partly hoary. Proboscis extremely slender, abortive. Palpi blackish, hardly extending so far as the head; third joint small, elongate-conical, acuminated. Abdomen bright ferruginous on each side and beneath. Legs partly clothed with bright ferruginous hairs. Fore wings hoary, with a black discal dot, and with three slightly undulating exterior cinereous bands; first band slender; second and third broader and diffused. Hind wings dark cinereous; costa and ciliæ whitish. Length of the body 11 lines; of the wings 28 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

17. Cossus? guttatus.

Cinerascens; alæ anticæ maculis discalibus fuscis; posticæ antice pallidiores.

Phalæna-Noctua guttata, *Drury, Exot. Ins.* iii. 29, pl. 22, 1.
Dyspessa tessera, *Hübn. Verz. Schmett.* 194, 1993.

Brazil.

18. Cossus? Ziliante.

Pallidissime fuscescens; alæ anticæ guttis fasciisque abbreviatis discalibus nigris.

Phalæna-Bombyx Ziliante, *Cram. Pap. Exot.* iv. 191, pl. 384, f. e.
Hypopta Ziliante, *Hübn. Verz. Schmett.* 195, 2002.

Surinam.

Africa.

19. Cossus? chassus.

Fuscus; caput albidum; thorax nigro quadrimaculatus, lateribus maculaque postica albidis; abdomen fasciis interruptis nigris; alæ anticæ albido nigroque variæ.

Phalæna-Noctua crassa, *Drury, Exot. Ins.* iii. 3, pl. 2, f. 1.

Xyleutes crassa, *Hübn. Verz. Schmett.* 195, 1994.
Hepialus crassus, *Westw. ed. Drury*, iii. 2, pl. 2, f. 1.

This species may belong to the genus *Zeuzera*.

Sierra Leone.

20. Cossus? tristis.

Mas. *Obscure fuscus, ex parte pallidior; alæ anticæ fascia brevi submarginali nigra.*

Phalæna-Noctua tristis, *Drury, Exot. Ins.* iii. 27, pl. 21, 1.
Hypopta tristis, *Hübn. Verz. Schmett.* 195, 1999.
Noctua tristis, *Westw. ed. Drury*, iii. 28, pl. 21, f. 1.

Cape? (Jamaica, *Drury, MSS.*)

Asia.

21. Cossus Strix.

Fuscus, albido conspersus; abdomen nigrum, albido conspersum; alæ anticæ albido nigro maculatæ et subreticulatæ, fusco plagiatæ; posticæ subcervinæ, plaga discali fusca, macula postica albida guttisque marginalibus nigris.

Phalæna-Noctua Strix, *Linn. Syst. Nat.* i. 2, 832, 82; *Mus. Lud Ulr.* 377. *Clerck, Icon.* pl. 51, f. 1.
Phalæna-Bombyx Strix, *Cram. Pap. Exot.* ii. 77, pl. 145, f. A.
Bombyx Strix, *Oliv. Enc. Méth.* v. 56, 120.
Xyleutes Strix, *Hübn. Verz. Schmett.* 195.

Amboina, Java.

22. Cossus? 4-notatus.

Albidus; antennæ fulvæ; alæ anticæ fusco notatæ maculisque duabus majoribus et obscurioribus fuscis, una discali, altera exteriore costam versus.

Described from a mutilated specimen. Whitish. Antennæ tawny. Fore wings somewhat mottled with transverse brown marks, and with two larger and darker brown spots, one in the disk at a little beyond one-third of the length, the other nearer the costa, at a little beyond two-thirds. Length of the body 5? lines; of the wings 14 lines.

a. Ceylon. From the Rev. J. Wenham's collection.

Australia.

23. Cossus caliginosus.

Mas. *Obscure cinereus; caput nigricans, supra albidum; palpi nigri, caput superantes; antennæ fulvæ, subpectinatæ, thorace multo longiores; thorax cervinus, albo nigroque fasciatus; pedes ex parte albido hirti, tarsis albido fasciatis; alæ anticæ lituris variis transversis nigris maculisque duabus aut tribus discalibus ferrugineis; posticæ fusco subreticulatæ.*

Male. Dark cinereous. Head blackish, whitish above. Palpi black, extending beyond the head; third joint elongated, cylindrical. Antennæ tawny, minutely pectinated, much longer than the thorax. Thorax in front pale fawn-colour, bordered with white, and on the hind side also with black. Legs partly clothed with whitish hairs; tarsi with whitish bands. Fore wings with various and irregular transverse black marks, and with two or three small ferruginous spots in the disk. Hind wings with brown and more numerous marks, and slightly reticulated. Length of the body 11 lines; of the wings 32 lines.

a. Van Dieman's Land. Presented by Morton Allport, Esq.

24. Cossus longicornis.

Mas. *Canus fusco varius; palpi caput non superantes; antennæ mediocriter pectinatæ, corporis dimidio longiores; thoracis discus albidus, nigro bivittatus et bimaculatus; abdominis discus ex parte fuscus; tarsorum articuli apice albidi; alæ anticæ fasciis tribus perobliquis diffusis fuscis; posticæ fuscæ, nitentes, apud costam albidæ.*

Male. Dark cinereous, or hoary mingled with brown. Palpi extending as far as the head; third joint nearly cylindrical, conical at the tip, rather shorter than the second. Antennæ moderately pectinated, very much longer than the thorax and rather more than half the length of the body. Disk of the thorax mostly whitish, with two diverging black stripes, which are united in front, and are each accompanied by a black spot on the outer side. Abdomen partly brown in the disk. Tarsal joints with whitish tips. Fore wings with three very oblique somewhat diffuse brown bands. Hind wings brown, shining, whitish along the costa; ciliæ hoary, mingled with brown. Length of the body 17 lines; of the wings 44 lines.

a. Sydney. From Mr. Lambert's collection.

Country unknown.

25. Cossus subocellatus.

Fœm. *Testacea; palpi nigricantes, caput non superantes; antennæ fulvæ, subserratæ, thoracis longitudine; alæ nigro subreticulatæ, anticæ fasciis duabus subapicalibus arcuatis unaque basali recta nigris, posticæ supra fuscescentes.*

——— ——— subocellata, *Stephens, MSS.*

Female? Dull testaceous. Palpi blackish, extending as far as the head; third joint elongate-conical, acute. Antennæ tawny, very minutely serrated, as long as the thorax. Abdomen with black bands. Fore wings imperfectly reticulated with black, with a straight slightly oblique black band near the base, and with two slender curved black subapical bands, one in front, the other behind. Hind wings slightly reticulated, brownish above. Length of the body 7 lines; of the wings 18 lines.

a. ———? From Mr. Children's collection.

26. Cossus basalis.

Mas. *Albidus, sat validus; caput, palpi et antennæ nigricantia; palpi caput non superantes; antennæ subpectinatæ, thorace paullo longiores; abdomen alas posticas plus dimidio superans; alæ angustæ, subreticulatæ, anticæ fasciis duabus nigris, una basali, altera arcuata subapicali.*

Male. Whitish, moderately stout. Head, palpi and antennæ blackish. Palpi extending as far as the head; third joint acute, conical. Antennæ slightly pectinated, a little longer than the thorax. Abdomen extending for more than half its length beyond the hind wings. Wings narrow, slightly reticulated with minute transverse black marks. Fore wings with a black band near the base, and with a black curved subapical band. Length of the body 6 lines; of the wings 14 lines.

a. ———?

Genus 2. ENDAGRIA.

"Corpus debilius, villosum. Palpi squamosi-hirsuti. Antennæ sat elongatæ, *maris* unidentatæ, *fœminæ* ciliatæ. Abdomen gracilius, *fœminæ* oviductu exerto. Alæ breviores, latiusculæ, cinereo albidoque variegatæ."—*Boisd.*

Bombyx, p., *Hübn.; Borkh.; Esp.; Scriba; Brahm.*
Cossus, p., *Ochs.; Meig.*

Dyspessa, *Hübn. Verz. Schmett.* 194.
Endagria, *Boisd. Gen. et Ind. Meth.* 76. *Herr.-Schæff.*

1. ENDAGRIA PANTHERINA.

Alæ anticæ albo nitidæ, pallide cinereo maculatæ; posticæ cinereæ.

Endagria pantherina, *Boisd. Gen. et Ind. Meth.* 76, 608. *Herr.-Schæff. Samml. Eur. Schmett.* ii. 13, 7.
Bombyx Pantherina, *Hübn. Bomb.* pl. 36, f. 157, 158; *Beitr.* ii. 1, 25, pl. 4, f. X.
Bombyx Hepialica, *Hübn. Bomb.* 140, 1; *Beitr.* ii. 1, 123. *Borkh. Eur. Schmett.* iii. 469, 38, 39.
Bombyx ulula, *Scriba, Beitr.* ii. 131, pl. 9, f. 1. *Esp. Schmett.* iii. 42, pl. 86; *Cont. Bomb.* 7, f. 4, 5; var. pl. 83, *Cont.* 14, f. 9, 10. *Borkh. Eur. Schmett.* iii. 142, 38; *Rhein. Mag.* i. 650, 5. *Brahm, Ins. Kal.* 336, 223.
Dyspessa pantherina, *Hübn. Verz. Schmett.* 194, 1992.
——— ———, *Pap. d'Eur* v. 86, pl. 193, f. 254.
Cossus pantherinus, *Ochs. Schmett. von Eur.* iii. 96, 4.
Cossus ulula, *Meig. Syst. Beschr. Eur. Schmett.* ii. 187, 4, pl. 76, f. 3; *Handb.* 116, 29.

Hungary.

2. ENDAGRIA SALICICOLA.

Alæ subtus nigricantes; anticæ supra lutescente albidæ, ciliis nigro variis, serie transversa media punctorum nigrorum; postice nigræ, ciliis albidis.

Cossus Salicicola, *Eversm. Bull. Soc. Imp. Nat. Mosc.* xxi. 3, 211, 4.
Cossus Pantherinus, *Eversm. Faun. Lepid.* 128.

Wolsk, Saratovisch Province.

Genus 3. CULAMA.

Mas. Corpus robustum. Proboscis obsoleta. Palpi porrecti, graciles, cylindrici, longiusculi, caput sat longe superantes. Antennæ mediocriter pectinatæ, corporis dimidio non breviores. Abdomen alas posticas plus triente superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ mediocriter latæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Body robust. Proboscis obsolete. Palpi porrect, slender, cylindrical, rather long, extending some distance beyond the head;

third joint more slender than the second and about half its length. Antennæ moderately pectinated, very much longer than the thorax and about half the length of the body. Abdomen extending for more than one-third of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with four moderately long spurs. Wings moderately broad. Fore wings very slightly convex in front, rounded at the tips, moderately oblique along the exterior border; second inferior vein about as far from the first as from the third; third rather further from the fourth than from the second.

This genus and *Cossodes* connect the *Cossidæ* with *Cryptophasia*, and through the latter with the *Micro-Lepidoptera*.

1. CULAMA AUSTRALIS.

Mas. *Murina; caput et thorax nigricantia; alæ anticæ strigulis plurimis transversis nigris; posticæ pallidiores, apud costam subalbidæ.*

Cossus australis, *Stephens, MSS.*

Male. Mouse-colour. Head and thorax blackish. Fore wings with many transverse black streaks, which towards the tips are narrower and more continuous than elsewhere. Hind wings paler than the fore wings, almost whitish along the costa. Length of the body 11 lines; of the wings 26 lines.

a. Australia. From Mr. Argent's collection.

Genus 4. COSSODES.

Fœm. Corpus crassum. Palpi breves, caput non superantes; articulus 3us parvus. Antennæ setaceæ, simplices, thorace paullo longiores. Abdomen alas posticas plus dimidio superans. Pedes validi, dense pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ sat angustæ, non longæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Cossodes, *White, Appendix, Capt. Grey's Journ. Exped. Discov. Austral.*

Turoma, *Boisd. Herr.-Schæff Lép. Exot. Sp. Sér.* 1.

Female. Body thick. Palpi porrect, extending as far as the head; third joint small, slender, somewhat conical. Antennæ setaceous, simple, a little longer than the thorax. Abdomen extending for rather more than half its length beyond the hind wings. Legs stout, densely pilose; hind tibiæ with four moderately long spurs. Wings rather narrow, not long. Fore wings hardly convex in front, rounded at the tips, moderately oblique along the exterior border;

first, second and third inferior veins near together at the base; fourth not far from the third.

This genus seems to be fully as nearly allied to *Cryptophasia*, and through it to the *Micro-Lepidoptera*, as to the *Cossidæ*, and therefore is only placed provisionally in the latter family.

1. Cossodes Lyonetii.

Fœm. *Cyaneus; thorax plagis duabus lateralibus albis, postice viride; abdomen viride, maculis quatuor albis dorsalibus transversis posticis; alæ anticæ fasciis quatuor incompletis albis, posticæ purpureæ, apud marginem interiorem cyaneæ.*

Cossodes Lyonetii, *White, Append. Capt. Grey's Journ. Exped. Discov. Austral.* ii. 477. Fig. *Entomologist*, 350, 42.

Turoma Lyonetii, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 149.

Female. Blue. Thorax with a very large white spot on each side; hind part green. Abdomen green, with four white transverse dorsal spots on the apical half. Fore wings with four white bands; the first, second and third broad, abbreviated and interrupted; the fourth slender, apical and macular. Hind wings purple, blue along the interior border.

New Holland.

a. King George's Sound, Australia. Presented by His Excellency Sir George Grey.

Genus 5. GIVIRA.

Mas. Corpus sat validum. Proboscis obsoleta. Palpi brevissimi; articulus 3us minimus. Antennæ mediocriter pectinatæ, thorace breviores. Abdomen alas posticas plus dimidio superans. Pedes validi, pilosi; tarsorum articuli dense fasciculati; tibiæ posticæ calcaribus quatuor parvis. Alæ breviusculæ, sat angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Male. Body moderately stout. Proboscis obsolete. Palpi very short, not extending near so far as the head; third joint very small. Antennæ moderately pectinated, shorter than the thorax. Abdomen extending for more than half its length beyond the hind wings. Legs stout, pilose; joints of the tarsi thickly tufted; hind tibiæ with four rather small spurs. Wings rather short and narrow. Fore wings straight in front, rounded at the tips, moderately oblique

along the exterior border; first and second inferior veins nearly contiguous at the base; third very near the second, rather remote from the fourth.

1. GIVIRA TRISTIS.

Mas. *Obscure fusca; caput et antennæ nigra; alæ anticæ fasciis duabus indistinctis obliquis subarcuatis nigricantibus; posticæ albidæ, macula postica fusca.*

Male. Dark brown. Head and antennæ black. Fore wings with two indistinct oblique slightly curved blackish bands beyond the middle, the exterior one rather broader than the other. Hind wings whitish, with a brown mark near the hind end of the exterior border. Length of the body 16 lines; of the wings 8 lines.

a. ——— ?

Genus 6. LANGSDORFIA.

Mas. Corpus sat validum. Proboscis obsoleta. Palpi porrecti, caput paullo superantes. Antennæ mediocriter pectinatæ, thorace vix breviores. Abdomen alas posticas plus dimidio superans. Pedes sat validi; tibiæ anticæ subtus dentatæ, posticæ calcaribus quatuor mediocriter longis. Alæ sat angustæ; anticæ apud costam subrectæ, apice vix acuminatæ, margine exteriore sat obliquo.

Langsdorfia, *Hübn. Samml. Exot. Schmett.* ii. *Verz. Schmett.*

Body moderately stout. Proboscis obsolete. Palpi porrecti, extending a little beyond the head; third joint conical, small. Antennæ moderately pectinated, hardly as long as the thorax. Abdomen extending for about two-thirds of its length beyond the hind wings. Legs moderately stout; fore tibiæ dentate beneath; hind tibiæ with four moderately long spurs. Wings rather narrow. Fore wings almost straight in front, hardly acuminated and very slightly falcate at the tips, rather oblique along the exterior border; first and second inferior veins nearly contiguous; third full six times further from the fourth than from the second.

1. LANGSDORFIA FRANCKII.

Fusca; antennæ nigricantes; alæ anticæ plaga basali fasciaque lata, marginali nigro-fuscis, maculis duabus basim versus argenteis guttisque costalibus nigris.

Langsdorfia Franckii, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* iii. *Fodicantes*, i. *Teredines*, A. *Crassæ*, 2, f. 1, 2.

Brown. Antennæ black. Fore wings with a diffuse dark brown patch near the base and with a broad marginal dark brown band; a row of black dots along the costa and two silvery marks near the base. Length of the body 14 lines; of the wings 28 lines.

a. Brazil. Presented by E. Doubleday, Esq.
b. Brazil.

Genus 7. ZEUZERA.

Corpus robustum. Palpi brevissime aut mediocriter longi. Antennæ thorace breviores. Abdomen longiusculum, alas posticas longe superans. Pedes validi, subnudi; tibiæ vix calcaratæ. Alæ angustæ; anticæ subacuminatæ, apud costam rectæ, margine exteriore perobliquo. *Mas.*—Antennæ latissime pectinatæ, dimidio apicali simplices. *Fœm.*—Antennæ simplices, graciles. Oviductus conspicuus.

Latagia, *Hübn. Verz. Schmett.* 196.
Zeuzera, *Latr.; Leach; Samou.; Steph.; Curt.; Boisd.; Meig.; &c.*
Phalæna-Noctua, p., *Linn.*
Cossus, p., *Fabr.; Ochs.*
Hepialus, p., *Schr.*
Bombyx, p., *Haw.*
Morpheis, p., *Hübn. Verz. Schmett.* 196.
Chalcidica, *Hübn. Verz. Schmett.* (*Phalænæ Fodicantes Teredines Graciles*), 197.
Xyrena, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1.
Eudoxyla, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1.
Cossus, p., *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1.

Body stout. Palpi very short or of moderate length. Antennæ slender, shorter than the thorax. Abdomen rather long, extending far beyond the hind wings. Legs stout, almost bare; hind tibiæ with two very minute apical spurs. Wings narrow. Fore wings slightly acuminated, straight along the costa, extremely oblique along the exterior border; discal areolet intersected by a forked veinlet; second superior vein forked at half its length; second inferior vein more than twice further from the third than from the first; third a little further from the fourth than from the second. *Male.*—Antennæ very deeply pectinated, bare from half the length to the tips. *Female.*—Antennæ bare. Oviduct exserted.

Europe.

1. Zeuzera Æsculi.

Alæ nudiusculæ niveæ, punctis numerosis cæruleo-nigris, thorace maculis duodecim atris.

Zeuzera Æsculi, *Latr. Gen. Cr. et Ins.* iv. 217. *Steph. Ill. Brit. Ent. Haust.* ii. 8, 1. *Meig. Syst. Beschr. Eur. Schmett.* ii. 188, 2, pl. 76, f. 4; *Handb.* 116, 30. *God. Lép. de France,* iv. 54, pl. 3, f. 2, 3. *Herr.-Schæff. Samml. Eur. Schmett.* ii. 12, 5.

Phalæna-Noctua Æsculi, *Linn. Syst. Nat.* i. 2, 833, 83. *Gmel. ed. Syst. Nat.* i. 5. *Donov. Nat. Hist. Brit. Ins.* v. 27, pl. 152. *Naturf.* xii. 73, 4, pl. 2, f. 7, 8.

Phalæna-Noctua Pyrina, *Linn. Faun. Suec.* 1150.

Phalæna-Cossus Æsculi, *Turt. Syst. Nat.* iii. 342.

Phalæna-Bombyx Æsculi, *Stew. El. Nat. Hist.* ii. 157.

Cossus Æsculi, *Fabr. Ent. Syst.* iii. 2, 4, 4. *Schæff. Icon. Nomencl. Panz.* 44. *Ochs. Schmett. von Eur.* iii. 99, 6.

——— ———, *Mouffet, Insect. Theat.* 92, *fig. infra. Roës. Ins.* iii. 276, pl. 48, f. 5, 6. *Schæff. Icon.* pl. 31, f. 8, 9. *Pap. d'Eur.* v. 69, pl. 190, f. 247. *Harris, Exp.* pl. 2, f. 3, 4.

Latagia Æsculi, *Hübn. Verz. Schmett.* 196, 2007.

Phalæna Æsculi, *Berl. Ges. Naturf.* iii. 30, 1, pl. 1, f. 1, 2.

Phalæna Pyrina, *Naturf.* ix. 114, 36. *Hufnagel, Tab. im Berl. Mag.* iii. 3, 290, 36, 4; 422.

Bombyx Æsculi, *Wien. Verz.* 60, 3. *Hübn. Bomb.* 152, 2, pl. 47, f. 202. *Illig. N. Ausg. dess.* i. 128, 3. *Esp. Schmett.* iii. 311, pl. 62, f. 1—7. *Borkh. Eur. Schmett.* iii. 363, 136; *Rhein. Mag.* i. 373, 234. *Fuessl. Schweiz. Ins.* 36, 688: *N. Mag.* ii. 60, 38. *Vieweg, Tab. Verz.* i. 49, 37. *Lang. Verz.* ii. 108, 824. *Brahm, Ins. Kal.* 383, 260. *Schwarz. Raup.* 5, 56, 267, 714, 766.

Noctua Hippocastani, *Poda, Mus. Græc.* 88, 16. *Rossi, Faun. Etr.* ii. 18, 373.

Hepialus Æsculi, *Schr. Faun. Boic.* ii. 1, 300, 1492.

Phalæna hilaris, *Fourcroy, Ent. Par.*

a—i. England. From Mr. Stephens' collection.
j—n. England.
o, p. Europe. From M. Becker's collection.
q. Europe. Presented by Capt. Sir E. Belcher.
r, s. Europe. From Mr. Children's collection.
t—v. France.

North America.

2. Zeuzera Canadensis.

Mas. *Straminea; alæ anticæ strigis crebris transversis fuscis, disco antice albo postice cinerascente; posticæ albæ venis stramineis.*

Zeuzera Canadensis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 168.

Male. Straw-colour. Fore wings thickly covered with little transverse brown streaks; fore part of the disk white, hind part grayish. Hind wings white, with straw-coloured veins.

Quebec.

3. Zeuzera pyrina.

Nivea; frons cyanea; thorax punctis duodecim cyaneis; femora antica supra cyanea; alæ anticæ punctis plurimis per fascias dispositis nigris, costa subferruginea.

Hepialus pyrinus, *Fabr. Sp. Ins.* ii. 208, 6; *Mant. Ins.* ii. 135, 8.
Phalæna-Hepialus Pyrinus, *Gmel. ed. Syst. Nat.* i. 5, 2618, 1305.
Cossus pyrinus, *Fabr. Ent. Syst.* iii. 2, 5, 6.

Spots on the thorax thus:—2, 4, 4, 2.

North America.

Mexico.

4. Zeuzera Redtenbachii.

Cinerea; alæ anticæ fasciis obliquis vittisque linearibus obscurioribus; posticæ fascia submarginali obscuriore.

Zeuzera (Cossus) Redtenbachii, *Hammerschmidt Naturwissenschaftliche Abhandlungen von Haidinger Wien.* ii. (1848), 151, pl. 14, f. 1—8.

Mexico.

South America.

A. Statura magna.
  A. Alæ posticæ vitta subinterrupta fusca. - putrida, *Perch.*
  B. Alæ posticæ vitta lata integra fusca. - Xylotribus, *Boisd.*
  C. Alæ posticæ non vittatæ. - - - Pyracmon, *Cram.*
B. Statura parva. - - - - - - cognata, *Walk.*

5. Zeuzera putrida.

Albida; alæ anticæ fascia lata diffusa pallide cinerea nigro strigata et ex parte reticulata, vitta nigra discali subundulosa guttisque marginalibus nigris; posticæ nigro strigatæ et guttatæ vittaque lata cinerea incisa discali.

Cossus Palmarum, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, pl. 8, f. 36.

Zeuzera putrida, *Percheron, Genera des Insectes, Lép.* pl. 4, f. 1.

Whitish. Fore wings with a broad diffused pale gray band at one-third of the length, covered, and in some parts reticulated with numerous black transverse streaks and with a slightly undulating black discal stripe, which extends from a little before half the length nearly to a little behind the tip; a row of black dots along the exterior border. Hind wings streaked and dotted like the fore wings, gray towards the base and with a broad gray discal stripe, which is deeply notched in front beyond half its length.

a. Brazil. From Mr. Mornay's collection.
b, c. Brazil. From Mr. Stevens' collection.
d, e. Brazil. From Mr. Children's collection.

6. Zeuzera Xylotribus.

Albida; thorax cinereo fuscoque varius; abdomen fuscum; alæ ex parte fusco reticulatæ, anticæ apud costam fusco suffusæ, vitta discali interrupta subramosa obscure fusca; posticæ cinereo-fuscæ, vitta latissima marginali cinerea.

Cossus Xylotribus, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, pl. 8, f. 37, 38.

Whitish. Thorax marked with gray and brown. Abdomen brown. Wings partly reticulated with brown. Fore half of the fore wings tinged with brown, which is darkest towards the base and is divided from the whitish part by a dark brown irregular interrupted subramose stripe. Hind wings grayish brown, with the exception of a very broad marginal gray stripe.

Brazil.

7. Zeurera Pyracmon.

Cervino-alba; alæ fusco transverse strigulatæ; anticæ vitta basali costali furcata, macula costali vittisque tribus abbreviatis discalibus nigricantibus.

Sphinx Pyracmon, *Cram. Pap. Exot.* iii. 169, pl. 287, f. B.
Morpheis Pyracmon, *Hübn. Verz. Schmett.* 196, 2004.
Surinam.

8. Zeuzera cognata.

Mas. *Alba; antennæ nigræ, ramis fulvis; alæ guttis marginalibus fuscis, anticæ fascia discali subincisa basim versus costali fusca.*

Male. White. Antennæ black, with tawny branches. Legs blackish. Wings with minute brown marginal dots. Fore wings with a brown discal stripe, which is costal towards the base and is composed of confluent dots. Hind wings with an indistinct pale brown discal streak. Length of the body 11 lines; of the wings 24 lines. Very nearly allied to *Z. fracta.*

a. Honduras. From Mr. Dyson's collection.

Africa.

A. Alæ metallicæ, maculis flavis. - auroguttata, *Herr.-Schæff.*
B. Alæ albidæ, maculis obscuris.
A. Alæ anticæ fusco variæ.
a. Alæ anticæ non vittatæ.
a. Alæ anticæ fascia subapicali.
i. Alæ anticæ fascia basali nigricante. - moderata, *Walk.*
ii. Alæ anticæ fascia nulla basali. - capensis, *Walk.*
b. Alæ anticæ non fasciatæ. - - - strigulosa, *Walk.*
b. Alæ anticæ vittatæ. - - - - - inclusa, *Walk.*
B. Alæ anticæ cervino variæ. - - Boisduvalii, *Feisth.*

9. Zeuzera auroguttata.

Fœm. *Nigra; thorax margine luteo nigro quadriguttato; abdomen guttis basalibus apiceque luteis, maculis trigonis lateralibus cyaneis; alæ anticæ virides, flavo guttatæ, basi cyaneæ; posticæ nigræ, costa flava, margine interiore flavo guttato.*

Zeuzera auroguttata, *Herr.-Schæff. Lép. Exot.* Sp. *Sér.* 1, f. 173.

Female. Black. Thorax with a luteous border, on each side of which are two black dots. Abdomen with four luteous dots at the base, luteous towards the tip, and with a blue triangular spot on each side of every segment. Fore wings green, blue at the base, thickly covered with yellow dots, and towards the base and along

the costa with luteous dots. Hind wings black, yellow along the costa and with yellow dots about the basal half of the interior border.

Sierra Leone.

10. Zeuzera moderata.

Fœm. *Albida ; caput et thorax cupreo conspersa ; palpi graciles, breves, articulo 3o minino ; alæ strigulis plurimis transversis nigricantibus, anticæ apud costam ex parte reticulatæ fascia brevi arcuata subapicali nigra ; posticæ subreticulatæ.*

Female. Whitish. Head and thorax with a few reddish cupreous plumes. Palpi slender, not extending so far as the head; third joint conical, very minute. Wings with numerous very minute transverse blackish streaks. Fore wings partly somewhat reticulated along the costa, with a short curved subapical black band. Hind wings slightly reticulated. Length of the body 14—18 lines; of the wings 30—38 lines.

a, *b*. Sierra Leone. Presented by the Rev. D. F. Morgan.

11. Zeuzera capensis.

Fœm. *Albida ; thorax nigro punctatus ; abdomen punctis obscuris fasciisque pallidioribus fuscis ; pedes nigri ; alæ nigro punctatæ, anticæ fascia arcuata interrupta subapicali guttisque marginalibus nigris, posticæ guttis marginalibus nigricantibus.*

Female. Whitish. Thorax flecked with black, whitish in front and on each side. Abdomen with dark brown flecks and with pale brown bands, darker beneath. Legs black. Wings very minutely flecked with black, paler towards the tips, with an interrupted curved subapical black band, and with black dots along the exterior border. Hind wings rather paler than the fore wings, with blackish marginal dots. Length of the body 17 lines; of the wings 40 lines.

a. Port Natal. From Mr. Stevens' collection.

12. Zeuzera inclusa.

Fœm. *Albida; antennæ subpectinatæ ramis nigris; thorax nigro conspersus; alæ anticæ strigulis transversis luteis nonnullisque nigricantibus subreticulatæ, guttis costalibus nigricantibus vittisque tribus fuscis, posticæ fusco reticulatæ.*

Female. Whitish. Antennæ very minutely pectinated to the tips, with black branches. Thorax flecked with black. Fore wings imperfectly reticulated with luteous and with some blackish minute transverse streaks; a row of blackish costal dots; three brown stripes, the fore one short, the middle one joined at each end to the hind one, which occupies the interior border. Hind wings reticulated with brown. Length of the body 13 lines; of the wings 24 lines.

a. Port Natal. From M. Gueinzius' collection.

13. Zeuzera strigulosa.

Mas. *Sordide albida; palpi et antennæ nigra; alæ anticæ strigulis transversis plurimis guttisque costalibus nigris.*

Male. Dingy whitish. Palpi and antennæ black. Fore wings with very numerous transverse little black streaks, and with black dots along the costa. Length of the body 8 lines; of the wings 18 lines.

a. Cape. From M. Dregé's collection.

14. Zeuzera Boisduvalii.

Mas. *Alba, cervina varia; alæ anticæ strigulis transversis stipatis cervinis.*

Zeuzera Boisduvalii, *Feisth. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 167.

Male. White, partly pale fawn-colour. Fore wings with very numerous transverse pale fawn-coloured marks. Length of the body 9 lines; of the wings 16 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.
b. Ashanti. Presented by E. Doubleday, Esq.

Asia.

A. Corpus totum metallicum.
  A. Alæ anticæ metallicæ maculis flavis. - Hyphinoe, *Cram.*
  B. Alæ anticæ luteæ, maculis metallicis. - Mineus, *Cram.*
B. Corpus pallidum, maculis metallicis.
  A. Alæ non vittatæ.
    a. Alæ anticæ plagiatæ. - - - signata, *Walk.*
    b. Alæ anticæ non plagiatæ.
      i. Alæ posticæ plagiatæ.
        * Alæ posticæ albidæ. - paucipunctata, *Steph.*
        ** Alæ posticæ fuscæ. - - - leuconota, *Steph.*
      ii. Alæ posticæ non plagiatæ.
        * Alæ anticæ confertissime strigatæ - indica, *Boisd.*
        ** Alæ anticæ parce strigatæ.
          † Thorax maculatus. - - conferta, *Walk.*
          †† Thorax non maculatus. - - pusilla, *Walk.*
  B. Alæ anticæ vittatæ. - - - - Asylas, *Cram.*

15. Zeuzera Hyphinoe.

Fœm. *Cyaneo metallica; alæ flavo marginatæ, anticæ flavo maculatæ.*

Phalæna Hyphinoe, *Cram. Pap. Exot.* ii. 91, pl. 154, f. B.
Bombyx Hyphinoe, *Fabr. Sp. Ins.* ii. 181, 64; *Mant. Ins.* ii. 116, 81; *Ent. Syst.* iii. 436, 91. *Oliv. Enc. Méth.* v. 56, 118.
Phalæna-Bombyx Hyphinoe, *Gmel. ed. Syst. Nat.* i. 5, 2417, 512.
Chalcidica Hyphinoe, *Hübn. Verz. Schmett.* 197, 2010.

Amboina.

16. Zeuzera Mineus.

Viridis, nitens; alæ luteæ; anticæ basi, maculis marginalibus vittaque discali interrupta aut subinterrupta viridibus; posticæ disco maculisque marginalibus viridibus.

Phalæna Mineus, *Cram. Pap. Exot.* ii. 52, pl. 131, f. D. *Donov. Ins. India*, pl.
Chalcidica Minea, *Hübn. Verz. Schmett.* 197, 2011.
Zeuzera viridicans, *Eschscholtz, Kotzebue Reise*, 219, pl. f. 29.

Batavia. Manilla.

a. Silhet. Presented by E. Doubleday, Esq.
b, *c*. Silhet. From Mr. Argent's collection.
d. North India. From the Rev. J. Stainforth's collection.
e. North India. From Mr. James' collection.
f. ———? From Mr. Children's collection.

17. Zeuzera indica.

Mas et fœm. *Alba ; thorax maculis viridibus aut cyaneis ; abdomen viridi aut cyaneo fasciatum ; pedes virides aut cyanei ; alæ anticæ guttis marginalibus, maculis subcostalibus strigisque transversis discalibus cyaneis aut viridibus ; posticæ strigis transversis discalibus fuscis guttisque marginalibus cyaneis aut viribibus.*

Zeuzera indica, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 166.

Male. White. Thorax with three green spots on each side, forming two short stripes, which diverge hindward. Abdomen with green bands. Wings with green marks like those of the female. *Female*.—White. Head black in front. Antennæ black, white towards the base. Hind part of the thorax with four blue spots. Abdomen with blue bands. Legs blue. Fore wings with marginal blue dots, with subcostal blue spots, and with discal transverse blue streaks. Hind wings with some brown transverse discal streaks, and with blue dots along the exterior border. Length of the body 10—14 lines; of the wings 22—36 lines.

a. Silhet. From Mr. Argent's collection.
b. Himalaya Mountains. From Mr. Leadbeater's collection.
c. North India. From Capt. Reid's collection.

18. Zeuzera conferta.

Fœm. *Albida ; antennæ nigræ ; thorax fasciis duabus interruptis viridibus ; abdomen e maculis viridibus trivittatum ; pedes virides ; alæ strigulis plurimis transversis viridibus aut æneis guttisque marginalibus viridibus, anticæ apud disci partem strigulis nullis.*

Female. Whitish. Antennæ black. Thorax with two interrupted green stripes. Abdomen with three rows of green spots. Legs mostly green. Wings with very numerous minute transverse green or æneous streaks, and with green dots along the border; part of the disk of the fore wings without streaks. Length of the body 13 lines; of the wings 28 lines.

a. Silhet. Presented by E. Doubleday, Esq.

19. ZEUZERA SIGNATA.

Mas. *Albida, nigro varia; antennæ pedesque nigra; alæ nigro subreticulatæ, anticæ guttis costalibus majoribus bene determinatis plagaque discali nigris.*

Male. Whitish, varied with black. Antennæ and legs black. Wings imperfectly reticulated with minute transverse black streaks. Fore wings with larger and more regular black marks along the costa, and with a black patch in the disk. Length of the body 18 lines; of the wings 40 lines.

a. North India. Presented by W. Wilson Saunders, Esq.

20. ZEUZERA LEUCONOTA.

Cinerea; thorax albus; antennæ nigræ; alæ nigro subtessellatæ, apice albæ; anticæ margine interiore toto, posticæ plaga marginali, albis.

Zeuzera leuconota, *Stephens, MSS.*

Gray. Thorax white. Antennæ black. Wings minutely and imperfectly tessellated with black. Fore wings white at the tips and along the interior border, where the line between the gray and the white is irregular and much indented. Hind wings white at the tips and with a white patch on the interior border. Length of the body 18—24 lines; of the wings 48—64 lines.

a, *b*. Ceylon. Presented by R. Templeton, Esq.
c. Silhet. From the Rev. J. Stainforth's collection.

21. ZEUZERA PAUCIPUNCTATA.

Fœm. *Cuprea; antennæ nigræ; alæ albidæ, anticæ maculis apud costam et apud marginem interiorem cupreis aut viridibus, posticæ strigis obliquis discalibus maculisque marginalibus cupreis.*

Zeuzera paucipunctata, *Stephens, MSS.*

Female. Body somewhat cupreous. Antennæ black. Wings whitish. Fore wings with cupreous or with green spots, which are most prevalent along the interior border and along the costa. Hind

wings with some cupreous oblique streaks towards the interior border, which is adorned with cupreous spots. Length of the body 19 lines; of the wings 44 lines.

a. Silhet. Presented by E. Doubleday, Esq.

22. Zeuzera Asylas.

Nivea; caput fulvum; thorax striga antinca nigra lineaque dorsali lata fulva; alæ anticæ strigis plurimis transversis abbreviatis nigris.

Phalæna Asylas, *Cram. Pap. Exot.* ii. 62, pl. 137, f. c.
Hepialus scalaris, *Fabr. Sp. Ins.* ii. 208, 4; *Mant. Ins.* ii. 135, 7.
Phalæna-Hepialus scalaris, *Gmel. ed. Syst. Nat.* i. 5, 2618, 1304.
Cossus scalaris, *Fabr. Ent. Syst.* iii. 2, 5, 5.
Phalæna scalaris, *Donov. Ins. India*, pl.
Morpheis scalaris, *Hübn. Verz. Schmett.* 196, 2005.

China.

Var.? mas. *Albida, palpis antennisque nigris, thorax vittis quatuor pallide luteis, alæ anticæ vittis duabus reticulatis nigris.*

Male. White. Palpi and antennæ black. Thorax with four pale luteous stripes. Fore wings with two imperfectly reticulated black stripes, and with a few occasional black transverse streaks on the disk between the stripes. Length of the body 8—10 lines; of the wings 16—20 lines.

a, *b*. North India. From Mr. James' collection.
c. North India. From Mr. Stevens' collection.

23. Zeuzera pusilla.

Mas. *Albida; palpi nigri; alæ anticæ albido-testaceæ, strigulis nonnullis discalibus et costalibus nigris.*

Male. Whitish. Palpi black. Antennæ with black branches. Fore wings whitish testaceous, with some very minute transverse black streaks, which are mostly in the disk or along the costa. Length of the body 4—6 lines; of the wings 9—13 lines.

a—f. North India. From Mr. Stevens' collection.

Australia.

A. Alæ anticæ fuscæ aut cinereæ.
A. Alæ anticæ albo vittatæ. - - - Eucalypti, *Boisd.*
B. Alæ anticæ albo non vittatæ. - - liturata, *Donov.*
C. Alæ anticæ albo plagiatæ. - - - nebulosa, *Donov.*
B. Alæ anticæ albæ.
A. Alæ anticæ vittatæ. - - - - - vittata, *Walk.*
B. Alæ anticæ non vittatæ. - - - - tigrina, *Boisd.*

Group 1.

Corpus crassum. Palpi porrecti, breves. Antennæ thorace non breviores. Abdomen alas posticas dimidio superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ longæ, sat angustæ; anticæ vix acuminatæ, apud costam subconvexæ, margine exteriore perobliquo. *Mas.*—Antennæ plus dimidio basali late pectinatæ. *Fœm.*—Antennæ subserratæ.

Body thick. Proboscis obsolete. Palpi porrect, extending nearly as far as the head; third joint elongate-conical, slightly acuminated. Antennæ as long as the thorax. Abdomen extending for about half its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings rather long and narrow. Fore wings hardly convex in front, hardly acuminated at the tips, extremely oblique along the interior border; second inferior vein more than twice further from the third than from the first; third more than twice further from the fourth than from the second. *Male.*—Antennæ deeply pectinated to somewhat beyond half the length, minutely serrated from thence to the tips. *Female.*—Antennæ simple.

24. Zeuzera Eucalypti.

Mas. *Fusca; thorax lateribus albis intus nigro marginatis, fascia angulata ferruginea, macula antica cyanea strigaque nigra dorsali; abdomen fasciis quatuor albis angulatis; alæ anticæ nigro subreticulatæ, vitta discali alba postice nigro marginata, venis ferrugineis; posticæ ferrugineæ, apices versus nigro reticulatæ.*

Eudoxyla Eucalypti, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 164.

Male. Brown. Head white. Thorax white in front and on each side; inner part of the white bordered with black, adjoining which there is an angular ferruginous band, a blue spot in front of

the white, and a black dorsal streak on a paler ground. Abdomen with four angular anterior white bands. Fore wings with minute and imperfect black reticulations, and with a white discal stripe, which extends along the whole length, and is bordered with black on the hind side; veins ferruginous. Hind wings ferruginous; the oblique apical half reticulated with black between the veins.

Fœm. *Fusca; thorax vittis duabus obliquis nigris; abdomen lateribus ferrugineis maculisque dorsalibus testaceis trigonis; alæ anticæ nigro subreticulatæ, vitta discali alba, venis ferrugineis; posticæ ferrugineæ, apices versus nigro reticulatæ.*

Eudoxyla D'Urvillii, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 163.

Female. Brown. Thorax with two diverging black stripes. Abdomen ferruginous along each side, and with a dorsal stripe of testaceous triangular spots. Oviduct slender, one-fourth of the length of the abdomen. Fore wings with minute and imperfect black reticulations, some of which are confluent, and with a white discal stripe, which extends along the apical half of the wing. Veins ferruginous. Hind wings ferruginous; the oblique apical half reticulated with black between the veins. Length of the body 24—34 lines; of the wings 70—90 lines.

a, b. Australia.

25. Zeuzera lituratа.

Fusca; caput album; thorax marginibus vittaque dorsali albis nigro marginatis; abdomen macula apicali fasciisque quatuor incisis (1a interrupta) albis; alæ nigro subreticulatæ, apud discum albidæ, strigis duabus apices versus nigris; posticæ apud costam albidæ.

Cossus lituratus, *Donov. Epit. Ins. New Holl.* pl. *Boisd. Voy. de l'Astrolabe*, Pt. 1, Lep. 235, f.

Xyrena Camarinæ, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 162.

Male. Brown. Head white. Thorax white in front and on each side, and with a white dorsal stripe; inner part of the white bordered with black. Abdomen with a white spot at the tip, and with four indented white bands, the first interrupted. Wings with minute and imperfect blackish reticulations, whitish along the disk, on each side of which towards the tip there is a black streak. Hind wings whitish along the costa. Ciliæ alternately black and white.

a—d. Australia. Presented by Major-General Hardwicke.
e, f. Van Dieman's Land. Presented by J. G. Children, Esq.
g—k. Van Dieman's Land. Presented by R. Butler, Esq.
l. Van Dieman's Land. From Mr. A. J. Smith's collection.
j—l. Van Dieman's Land. Presented by Morton Allport, Esq.
m. Swan River. From Mr. Stevens' collection.
n, o. Van Dieman's Land.

26. Zeuzera nebulosa.

Alæ canæ, strigis numerosissimis reticulatis obscurioribus; anticæ apice arcu maculari nigro-fusco.

Cossus nebulosus, *Donov. Epit. Ins. New Holl.* pl. *Boisd. Voy. de l'Astrolabe*, Pt. 1, Lep. 236, 2.
Z. lituratus, *var.?*

Botany Bay.

27. Zeuzera vittata.

Mas. *Alba; caput luteum; palpi nigri; thorax fusco trivittatus; abdomen luteo varium, e guttis nigris trivittatum, fasciis subtus nigris; alæ anticæ vittis duabus guttularibus fuscis, gutta antica lineaque discali luteis.*

Male. White. Head luteous. Palpi and antennæ black. Thorax with three brown stripes. Abdomen partly luteous, with three rows of black dots; under side with black bands. Fore wings with two stripes of brown dots, one costal, the other discal and intersected by a luteous line; a luteous dot at two-thirds of the length on the hind border of the costal stripe. Length of the body 12 lines; of the wings 30 lines.

a. Swan River. Presented by Sir J. Richardson.

28. Zeuzera tigrina.

Mas. *Albida, luteo varia; palpi et antennæ nigra; abdomen nigro fasciatum; alæ anticæ guttis stipatis nigris, posticæ nigricantes.*

Cossus tigrinus, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 39, f. 40.

Male. Whitish, partly tinged with luteous. Palpi and antennæ black. Abdomen with black bands. Fore wings very thickly covered with black dots. Hind wings blackish.

Fœm. *Alba ; antennæ fuscæ, subserratæ ; abdomen supra luteum fasciis nigris albisque ; alæ guttis plurimis obscure fuscis, posticæ guttis confluentibus.*

Female. White. Palpi black above towards the base. Antennæ brown, very minutely serrated. Abdomen above luteous, with black bands and with a few white bands. Wings with very numerous dark brown dots or small spots, which are confluent in the hind wings. Length of the body 7—11 lines; of the wings 16—24 lines.

a. Australia. From Mr. Children's collection.
b. Australia. From Mr. Milne's collection.
c. Australia. From Mr. Cuming's collection.

Country unknown.

29. Zeuzera fracta.

Mas. *Albida ; antennæ ramis fulvis ; alæ lituris transversis fuscis, anticæ guttis costalibus nigris vittaque discali dislocata fusca.*

Male. Whitish. Antennæ with tawny branches. Wings with numerous little transverse brown streaks. Fore wings with the streaks much darker than in the hind wings, with black dots along the costa, and with a discal brown dislocated stripe, which towards the base of the wing is contiguous to the costa. Length of the body 11 lines; of the wings 22 lines.

a. ———?

Genus 8. PHRAGMATÆCIA.

Corpus cylindricum. Caput conicum. Proboscis obsoleta. Palpi breves, caput non adæquantes. Abdomen longum, aut longissimum. Pedes validi, pilosi; tibiæ posticæ calcaribus 2 apicalibus minimis. Alæ angustæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore subobliquo. *Mas.*—Antennæ mediocriter pectinatæ, apices versus subpectinatæ, thorace paullo longiores. *Fœm.*—Antennæ subserratæ, thorace non longiores.

Bombyx, p., *Hübn. Bomb.; Esp.*
Zeuzera, *Hübn. Verz. Schmett.* 196; *Ochs.; Steph. Brit. Ent.; Westw.; Meig.*
Macrogaster, *Duponch. Cat. Lep. d'Eur.; Steph. Cat. Brit. Lep.*
Phragmatœcia, *Newman, Zool.*
Rhizoma, *Boisd.; Herr.-Schæff.*

Body cylindrical. Head conical in front. Proboscis obsolete. Palpi short, not extending so far as the head. Abdomen long or very long, generally extending far beyond the hind wings. Legs stout, pilose; hind tibiæ with two very small apical spurs. Wings narrow. Fore wings hardly convex in front, rounded at the tips, slightly oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third about twice further from the fourth than from the second. *Male.*—Antennæ moderately pectinated, slightly pectinated towards the tips, a little longer than the thorax. *Female.*—Antennæ slightly serrated, not longer than the thorax.

Europe.

1. Phragmatæcia Arundinis.

Abdomen elongatum; alæ anticæ obtusæ, albido cinerascentes, fusco irroratæ, posticæ maris *albidæ*, fœminæ *fuscæ.*

Bombyx Arundinis, *Hübn. Bomb.* 151, 1, pl. 47, f. 200, 201.
Bombyx Castaneæ, *Hübn. Beitr.* ii. 1, 9, pl. 1, f. c.
Cossus Arundinis, *Ochs. Schmett. von Eur.* iii. 98, 5.
Bombyx castanea, *Esp. Schmett.* iii. 97, pl. 94. *Cont.* 25, f. 1.
——— ———, *Pap. d'Eur.* pl. 9, f. 257, bis.
Zeuzera Arundinis, *Hübn. Verz. Schmett.* 196, 2006. *Meig. Syst. Beschr. Eur. Schmett.* ii. 188, 1, pl. 76, f. 4. *Steph. Entomologist*, 160. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 13, 6.
Phragmatæcia Arundinis, *Newman, Zool.*

a—d. England. From Mr. Foxcroft's collection.
e, f. England. From Mr. Stephens' collection.
g. Europe. From M. Becker's collection.
h, i. Europe.

South America.

Group 1.

Mas. Corpus longum, sat gracile, fere cylindricum. Palpi pilosi, brevissimi. Antennæ mediocriter pectinatæ, apices versus subpectinatæ, thorace non longiores. Abdomen alas posticas dimidio superans. Pedes graciles, usque ad tarsorum apices pilosi; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ angustæ, anticæ apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo; posticæ multo breviores.

Male. Body long, rather slender, nearly cylindrical. Palpi pilose, very short. Antennæ moderately pectinated to nearly half

the length, slightly pectinated from thence to the tips, not longer than the thorax. Abdomen extending for half its length beyond the hind wings. Legs slender, clothed to the tips of the tarsi; hind tibiæ with two rather small apical spurs. Wings narrow. Fore wings straight along the costa, rounded at the tips, oblique along the exterior border, very much longer than the hind wings; second inferior vein full six times further from the third than from the first; fourth springing from near the base of the wing, a little further from the third than the third is from the second.

2. PHRAGMATÆCIA ALBICANS.

Mas. *Albida; caput vittis duabus obliquis connexis furcatis fuscis; palpi ex parte fusci; antennæ fulvæ; thorax vitta antica fasciisque tribus pallide fuscis; abdominis latera et pedes ex parte pallide fuscescentia; alæ anticæ fasciis nonnullis angustis undulosis obliquis fuscis aut cinereis maculisque marginalibus fuscis aut cinereis, venis nigro fasciatis; posticæ apud margines subcinereæ.*

Male. Whitish. Head with two pale brown stripes, which each emit a branch to the base of the antenna, are united in front, and diverge beyond to the mouth. Palpi partly pale brown. Antennæ tawny. Thorax with a pale brown stripe in front and with three pale brown bands. Abdomen on each side and legs slightly and partly tinged with pale brown. Fore wings with several slender undulating and oblique brown or gray bands, which are most distinct towards the exterior border; the latter has a row of brown or blackish spots between the veins; veins with some black bands. Hind wings slightly tinged with gray towards the borders. Length of the body 8 lines; of the wings 15 lines.

Rio Janeiro. In Mr. Fry's collection.

Group 2.

Mas. Corpus longiusculum, sat gracile. Antennæ late pectinatæ, apices versus simplices. Abdomen alas posticas paullo superans. Pedes graciles, femoribus et tibiis pilosis, tibiis posticis calcaribus duobus apicalibus parvis. Alæ sat angustæ; anticæ apud costam vix convexæ, apice vix angulatæ, margine exteriore obliquo; posticæ apud costam dilatatæ.

Male. Body rather long and slender. Palpi pilose, very short. Antennæ deeply pectinated to a little beyond half the length, simple from thence to the tips. Abdomen extending for one-fourth

of its length beyond the hind wings. Legs slender; femora and tibiæ with moderately long hairs; hind tibiæ with two small apical spurs. Wings rather narrow. Fore wings hardly convex along the costa, hardly angular at the tips, oblique along the exterior border; three inferior veins; first and second contiguous at the base; third rather remote. Hind wings much dilated along the costa; subcostal vein with a corresponding curve.

3. PHRAGMATÆCIA TESTACEA.

Mas. *Pallide lutea; antennæ fulvæ; pectus et pedes albida; abdomen testaceum, subtus albidum; alæ anticæ subtus posticæque totæ flavo-albæ.*

Male. Pale luteous. Antennæ tawny. Pectus and legs whitish. Abdomen testaceous, whitish beneath. Hind wings and under side of fore wings yellowish white. Length of the body 6½ lines; of the wings 16 lines

Rio Janeiro. In Mr. Fry's collection.

Group 3.

Mas. Corpus gracile, longissimum. Palpi brevissimi. Antennæ subpectinatæ, thorace paullo breviores. Abdomen alas posticas longissime superans. Pedes sat graciles, pilis longis vestiti; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ perangustæ.

Male. Body slender, very long. Palpi very short. Antennæ slightly pectinated along the whole length, a little shorter than the thorax. Abdomen extending for three-fourths of its length beyond the hind wings. Legs rather slender; femora and tibiæ clothed with long hairs; hind tibiæ with two minute apical spurs. Wings very narrow.

4. PHRAGMATÆCIA RUBESCENS.

Mas. *Rufo-ferruginea; antennæ nigricantes; tarsi albidi; alæ anticæ apud costam ex parte testaceæ, margine exteriore testaceæ fusco notatæ, vitta postica testacea; posticæ albæ, basi fuscescentes, strigis marginalibus fuscis.*

Male. Reddish ferruginous. Antennæ blackish. Tarsi almost wholly white. Fore wings partly testaceous along the costa, testaceous, with brown marks along the exterior border; a testaceous

stripe proceeding from the middle of the base, inclined at half its length towards the interior border and joining the latter near its tip. Hind wings white, brownish at the base, and with brown marks along the border. Length of the body 11 lines; of the wings 18 lines.

Rio Janeiro. In Mr. Fry's collection.

Africa.

5. PHARGMATÆCIA PALLENS.

Mas. *Pallide cervina; abdomen cinerascens, apice cervinum; alæ anticæ apices versus cinereo reticulatæ, posticæ albæ.*

Rhizoma pallens, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 169.

Male. Pale fawn-colour. Abdomen grayish fawn-colour at the tip. Apical half of the fore wings minutely reticulated with gray. Hind wings white.

Guinea.

Genus 9. MORPHEIS.

Corpus sat validum. Proboscis brevis, distincta. Palpi porrecti, caput non superantes; articulus 3us acuminatus. Antennæ graciles, setaceæ, thorace paullo longiores. Abdomen elongatum, caput longe superantes. Pedes validi, pilosi, longiusculi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ longæ, angustæ; anticæ subfalcatæ acuminatæ apud costam subrectæ, margine exteriore perobliquo.

Morpheis, *Hübn. Verz. Schmett.* (*Phalænæ Fodicantes Teredines Graciles*), 196.

Myelois, *Boisd.*; *Herr.-Schæff.*

Body rather stout. Proboscis short, distinct. Palpi porrect, not extending beyond the head; third joint acuminated. Antennæ slender, setaceous, a little longer than the thorax. Abdomen extending for full one-third of its length beyond the hind wings. Legs stout, pilose, rather long; hind tibiæ with two minute apical spurs. Wings long and narrow. Fore wings falcate, nearly straight along the costa, acuminated at the tips, slightly undulating and extremely oblique along the exterior border; first and second inferior veins almost contiguous at the base; third about thrice further from the fourth than from the second.

This genus differs much from the other genera of *Cossidæ*, and has some resemblance to the *Noctuites*. The four following species may be all varieties of *M. Smerintha*.

1. MORPHEIS SMERINTHA.

Pallide fusca; abdomen obscure fuscum, marginibus apiceque pallide fuscis; alæ anticæ nigro subpunctatæ, macula apicali fasciisque duabus interruptis nigricantibus; posticæ albidæ, antice testaceæ, basi fuscescentes.

Morpheis Smerintha, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* iii. *Fodicantes*, i. *Teredines*, B. *Graciles*, i. 1, 2, 3, 4?
Myelobia pustulata, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 152.

Male. Pale brown. Abdomen dark brown; borders and tip pale brown. Fore wings slightly sprinkled with black points, with a blackish apical spot, and with two oblique interrupted blackish bands, the first more oblique than the second and composed of three spots, the second interrupted in the middle and extending nearly to the apical spot. Hind wings whitish, testaceous in front, brownish at the base.

Parà.

Var. β. Fawn-colour. Fore wings with a very broad oblique band of various blackish marks. Hind wings white. Length of the body 16 lines; of the wings 46 lines.

a. "Found at sea (Atlantic), 500 miles from land."

2. MORPHEIS PALEACEA.

Mas. *Straminea; alæ anticæ punctis obscuris subconspersæ, apicibus fasciisque duabus cinereis; posticæ albæ.*

Myelobia paleacea, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1. f. 150.

Male. Straw-colour. Fore wings slightly sprinkled with dark points, with pale gray tips, and with two oblique gray bands; the first short, on the hind border at one-fourth of the length of the hind wing; the other joining the hind border at half the length of the wing, extending thence nearly to the tip, where it forms an acute angle. Hind wings white.

Brazil.

3. MORPHEIS DECOLORATA.

Fœm. *Straminea; alæ anticæ punctis obscuris subconspersæ, macula apicali fasciisque quatuor obliquis fuscescentibus; posticæ pallide stramineæ, basi fuscescentes.*

Myelobia decolorata, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 151.

Female. Straw-colour. Fore wings slightly sprinkled with dark points, with a brownish apical spot, and with four oblique brownish bands; first band extending from the hind border to one-third of the breadth of the wing; second angular, extending from the hind border to two-thirds of the breadth; third complete, slightly undulating, extending nearly to the apical spot. Hind wings pale straw-colour, brown towards the base.

Brazil.

4. MORPHEIS MURINA.

Fœm. *Obscure fusca; abdomen vitta dorsali lutea; alæ anticæ maculis duabus fasciisque duabus obliquis nigricantibus; posticæ albæ, basi fuscescentes, apud costam testaceæ.*

Myelobia murina, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 153.

Female. Dark brown. Abdomen with a luteous dorsal stripe. Fore wings with a blackish apical spot, a blackish discal spot, and two oblique blackish bands; the first extending from the hind border to half the breadth of the wing; second complete, undulating, beyond the discal spot. Hind wings white, testaceous along the costa, brownish towards the base.

Brazil.

Fam. 12. HEPIALIDÆ.

Habitus non geometriformis. Proboscis nulla. Palpi obsoleti. Antennæ moniliformes, vix capitis latitudine longiores. Thorax non cristatus. Abdomen haud barbatum. Alæ quatuor deflexæ, longæ, angustæ, structura et magnitudine fere æquales, anticæ opacæ, posticæ semihyalinæ. *Fœmina* semper alata. Larva libera.

Hepialidæ, *Steph. Ill. Brit. Ent. Haust.* ii. 3. *Newman, Ent. Mag.* i. 67.
Zeuzeridi, p., *Boisd.*

The wing-veins of the *Hepialidæ* are very different from those of the other *Bombycites* in structure. The discal areolet is as it were doubled; the second inferior vein is about ten times further from the third than from the first; the third is joined to the discal areolet by an oblique veinlet, and to the submedian vein by two veinlets, whose junction forms an acute angle, which emits a vein to the border.

Synopsis of Genera.

A. Alæ anticæ posticis longiores.
A. Pedes validi.
a. Abdomen non aut vix elongatum.
a. Abdominis latera non fasciculata.
i. Antennæ filiformes aut setaceæ.
* Antennæ filiformes, breves. - 1. HEPIALUS, *Fabr.*
** Antennæ setaceæ, longiores.
† Palpi obsoleti. - - - 3. DALACA, *Walk.*
†† Palpi distincti.
‡ Antennæ *maris* serratæ, *fœminæ* simplices.
§ Alæ anticæ margine exteriore subobliquo. 4. ELHAMMA, *Walk.*
§§ Alæ anticæ margine exteriore perobliquo. 11. PORINA, *Steph.*
‡‡ Antennæ *maris* pectinatæ, *fœminæ* serratæ.
§ Antennæ *maris* mediocriter pectinatæ, inter ramos serratæ. - 12. OXYCANUS, *Steph.*
§§ Antennæ *maris* late pectinatæ, inter ramos non serratæ. - - 13. PIELUS, *Steph.*
ii. Antennæ subclavatæ. - - 2. ONCOPERA, *Steph.*
b. Abdominis latera fasciculata. - - 10. DOLECTA, *Boisd.*
B. Abdomen longum aut longissimum.
a. Alæ angustiores, non falcatæ, margine exteriore recto. 7. PHASSUS, *Steph.*
b. Alæ latiores, subfalcatæ, margine exteriore undulato. 8. CHARAGIA, *Walk.*
B. Pedes graciles.
A. Alæ angulatæ. - - - - 14. DRACONIA, *Hübn.*
B. Alæ non angulatæ.
a. Palpi obsoleti. - - - - 5. FRAUS, *Steph.*
b. Palpi distincti - - - - 6. GORGOPIS, *Hübn.*
B. Alæ anticæ posticis non longiores. - - 9. LETO, *Hübn.*

Genus 1. HEPIALUS.

Corpus sat gracile. Caput et thorax pilosa. Palpi obsoleti. Antennæ breves, graciles, simplices, filiformes. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ longæ, angustæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriore perobliquo. *Mas.*—Tibiæ posticæ fasciculatæ.

Gorgopis, p., Gazoryctra, Pharmacis et Triodia, *Hübn. Verz. Schmett.* 198.
Phalæna-Noctua, p., *Linn.*
Phalæna-Hepialus, p., *Gmel.*
Hepialus, *Fabr.; Schr.; Latr.; Haw.; God.; Leach; Samou.; Curt.; Steph.*
Hepiolus, *Illig.; Ochs.*
Bombyx, p., *Hübn.*
Noctua, p., *Esp.*
Cossus, p., *God.*

Body rather slender. Head and thorax pilose. Proboscis and palpi obsolete. Antennæ slender, simple, filiform, about as long as the breadth of the head, hardly longer in the male than in the female. Abdomen extending rather beyond the hind wings. Legs stout, pilose; hind tibiæ with two very minute apical spurs. Wings long and narrow. Fore wings almost straight along the costa, somewhat rounded at the tips, extremely oblique along the exterior border; second inferior vein about ten times further from the third than from the first. *Male.*—Hind tibiæ tufted with long hairs.

Europe.

A. Alæ apice acutæ. - - - - - Humuli, *Linn.*
B. Alæ apice rotundatæ, anticæ signaturis subargenteis et fuscis.
A. Vitta subargentea macularis ex apice alæ versus medium marginis interioris, deinde ad basim.
a. Fuscus, maculis argenteis. - - - Ganna, *Hübn.*
b. Subferrugineus aut cinerascens, maculis albidis. lupulinus, *Linn.*
B. Lineæ duæ rectæ a margine antico versus interiorem in angulum rectum convergentes. - - Sylvinus, *Linn.*
C. Signaturæ confusæ.
a. Ciliæ inter costas albidæ.

a. Alarum anticarum linea limbalis punctis inter costalibus albis. *Fœmina* alis abortivis. - Pyrenaicus, *Donzel.*
b. Linea limbalis innotata. *Fœmina* alata. velleda, *Hübn.*
B. Ciliæ innotatæ. - - - - - carnus, *Fabr.*
D. Vittæ duæ transversæ parallelæ. - - Hectus, *Linn.*

1. Hepialus Humuli.

Alæ maris *niveæ; fœminæ flavæ, anticæ fulvo striatæ.*

Hepialus Humuli, *Fabr. Sp. Ins.* ii. 207, 1; *Mant. Ins.* ii. 134, 1; *Ent. Syst.* iii. 2, 5, 1. *Haw. Lep. Brit.* 138. *Illig. N. Ausg. dess.* i. 131, 1. *Sulz. Gesch. Ins.* ii. 160, pl. 22, f. 1. *Borkh. Eur. Schmett.* iii. 144, 39; *Rhein. Mag.* i. 373, 235. *Lang. Verz.* ii. 115, 858, 859. *Brahm, Ins. Kal.* 59, 23, 478, 340. *Schwarz, Ravp.* 26, 106, 533, 701, 761. *God. Lép. de France*, iv. 32, pl 1, f. 1, 2. *Steph. Ill. Brit. Ent. Haust.* ii. 6, 3. *Westw. and Humph. Brit. Moths*, i. 46, pl. 8, f. 7. *Herr.-Schæff. Samml. Eur. Schmett. Text*, iii. 6, 1.

Phalæna-Noctua Humuli, *Linn. Syst. Nat.* i. 2, 832, 84; *Faun. Suec.* 917, 1147.

Phalæna-Hepialus Humuli, *Gmel. ed. Syst. Nat.* i. 5, 2617, 84. *Berk. Syn.* i. 139. *Donov. Nat. Hist. Brit. Ins.* viii. 59, pl. 274, f. 1, 2. *Stew. El. Nat. Hist.* ii. 206. *Turt. Syst. Nat.* iii. 340.

———— ————, *Rai, Ins.* ii. 157, 3. *Deg. Ins.* i. pl. 7, f. 5, 6. *Sulz. Hist. Ins.* pl. 22, f. 1. *Harr. Ins. Angl.* pl. 4, f. a—d. *Pap. d'Eur.* v. 74, pl. 191, f. 248, a—k.

Bombyx Humuli, *Wien. Verz.* 61, 1. *Vieweg, Tab. Verz.* ii. 3, 1. *Schr. Faun. Boic.* ii. 1, 301, 1493. *Hübn. Bomb.* 152, 1, pl. 48, f. 203, 204; *Larv. Lep.* iii. *Bomb.* iii. *Tend.* C. a. f. a—c. *God. Pap. de France*, iii. pl. 1, f. 1, 2. *Meig. Handb.* 147, 1; *Syst. Beschr. Eur. Schmett.* iii. 56, 1, pl. 89, f. 3.

Noctua Humuli, *Esp. Schmett.* iv. 20, pl. 80. *Noct.* 1, f. 1—4.

Phalæna Humuli, *Müller, Zool. Dan.* 120, 1380. *Fuessl. Schweiz. Ins.* 36, 689.

Hepialus Humulator, *Haw. Pr.* 19.

Hepiolus Humuli, *Ochs. Schmett. Eur.* iii. 104, 1; iv. 50, 1.

Gorgopis Humuli, *Hübn. Verz. Schmett.* 198, 2017.

a—k. England. From Mr. Stephens' collection.
l—o. England.
p—r. Europe. From M. Becker's collection.

2. HEPIALUS VELLEDA.

Alæ fusco, livido alboque variæ, striga postica punctorum niveorum costaque fusco maculata.

Hepialus velleda, *Haw. Lep. Brit.* 141. *Steph. Ill. Brit. Ent. Haust.* ii. 6, 4. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 8, 6.

Phalæna-Noctua Mappa, *Donov. Nat. Hist. Brit. Ins.* x. 95, pl. 36, f. 3.

Bombyx velleda, *Hübn. Bomb.* 153, 6, pl. 50, f. 212; pl. 54, f. 233, 234.

Noctua velleda, *Esp. Schmett.* iv. 58, pl. 195, 116, f. 1; iv. 2, 2.

Hepiolus velleda, *Ochs. Schmett. von Eur.* iii. 105, 2.

Var. Hepialus carnus, *Steph. Ill. Brit. Ent. Haust.* ii. 7, 5, pl. 13, f. 1. *Alæ anticæ cinerascentes aut lividæ, nubeculosæ, maculis fuscis albisque seriatim sparsæ, posticæ cinereæ.*

a—v. England. From Mr. Stephens' collection.

u—dd. England.

ee—hh. Europe. From M. Becker's collection.

3. HEPIALUS CARNUS.

Alæ anticæ nubeculosæ, maris *cinerascentes*, fœminæ *lividæ, maculis fuscis albisque seriatim sparsis.*

Hepialus carnus, *Fabr. Ent. Syst.* iii. 2, 6. *Sthr. Faun. Boic.* ii. 1, 304. *Ochs. Schmett. von Eur.* iii. 107, 3. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 87.

Hepialus Jodutta, (fœm.) *Fabr. Ent. Syst.* iii. 2, 6, 2.

Bombyx carna, *Hübn. Bomb.* 154, 8, pl. 50, f. 214. *Wien. Verz.* 310. Fam. O, 3, 4. *Illig. N. Ausg. dess.* i. 132, 3, 4. *Borkh. Eur. Schmett.* iii. 159, 45. *Brahm, Ins. Kal.* 479, 342.

Noctua carna, *Esp. Schmett.* iv. 31, pl. 82. *Noct.* 3, f. 1.

——— ———, *Pap. d'Eur.* v. 81, pl. 93, f. 251.

Bombyx Jodutta, *Hübn Bomb.* 154, 7, pl. 50, f. 213. *Wien. Verz.* 61. Fam. O, 6. *Illig. N. Ausg. dess.* i. 134, 6.

Gazorycta Jodutta, *Hübn. Verz. Schmett.* 198, 2019.

Pharmacia carna, *Hübn. Verz. Schmett.* 199, 2025.

Phalæna-Hepialus carna, *Gmel. ed. Syst. Nat.* i. 5, 2617, 1302.

a. St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

This specimen is referred with doubt to the above species.

4. Hepialus lupulinus.

Alæ anticæ maris *luteæ*, fœminæ *cinerascentes, lineola media fasciisque duabus albis externis punctato interruptis; posticæ cinereæ.*

Hepialus lupulina, *Fabr. Sp. Ins.* ii. 207, 2; *Mant. Ins.* ii. 134, 3; *Ent. Syst.* iii. 2, 6, 3. *Haw. Lep. Brit.* 143. *Borkh. Schmett.* iii. 151, 41. *God. Lép. de France*, iv. 38, pl. 1, f. 5, 6. *Steph. Ill. Brit. Ent. Haust.* ii. 5, 2. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 7, 3. *Westw. and Humph. Brit. Moths*, i. 45, pl. 8, f, 3—5.
Phalæna-Noctua lupulina, *Linn. Syst. Nat.* i. 2, 833, 86. *Faun. Suec.* 1149. *Clerck. Icon.* pl. 9, f. 4.
Phalæna-Bombyx, *Gmel. ed. Syst. Nat.* i. 5, 2617, 86.
Phalæna-Hecta, *Harr. Exp.* 74, pl. 22, f. 1.
Phalæna-Bombyx serraticornis? *Mus. Lesk.* 99, 278. *Gmel. ed. Syst. Nat.* i. 5, 2618, 1529.
Hepialus-Noctua lupulina, *Esp. Schmett.* iv. pl. 2, f. 1—4.
Bombyx lupulina, *Hübn. Bomb.* pl. 49, f. 210, 211.
Hepialus obliquis, *Fabr. Ent. Syst.* iii. 2, 6, 5.
Hepiolus lupulinus, *Ochs. Schmett.* iii. 114, 6; iv. 51, 6. *God. Pap. de France*, iii. pl. 1, f. 5, 6. *Meig. Syst. Beschr. Eur. Schmett.* iii. 57, 3, pl. 89, f. 5.
Hepialus lupalator, *Haw. Pr.* 19.
Hepialus fuscus, *Haw. Lep. Brit.* 141.
Hepialus Cora, *Schr. Faun. Boic.* ii. 1, 304.
Bombyx Flina, *Wien. Verz.* 61, 113. *Hübn. Bomb.* pl. 49, f. 210 (mas), 211 (fœm).
Hepialus angulum, *Haw. Lep. Brit.* 142.
Hepialus obliquis, *Haw. Lep. Brit.* 142.
Hepialus nebulosus, *Haw. Lep. Brit.* 143.
Triodia lupulina, *Hübn. Verz. Schmett.* 198, 2022.
Pharmacia Flina, *Hübn. Verz. Schmett.* 199, 2024.

a—ggg. England. From Mr. Stephens' collection.
hhh—nnn. England.
ooo. Europe.

5. Hepialus Hectus.

Alæ anticæ maris *luteæ, strigis tribus obliquis punctato interruptis aureis; fœminæ saturate fuscæ fasciis duabus cinerascentibus; posticæ fuscæ:*

Hepialus Hectus, *Fabr. Sp. Ins.* ii. 208, 3; *Mant. Ins.* ii. 134, 4; *Ent. Syst.* iii. 2, 6, 4. *Wien. Verz.* 61, O, 4. *Haw. Lep. Brit.* 144. *Leach, Edin. Encycl.* ix. 132. *Steph. Ill. Brit. Ent. Haust.* ii. 4, 1. *God. Lép. de France*, iv. 35, pl. 1, f. 3, 4. *Westw. and Humph. Brit. Moths*, i. 45, pl. 8, f. 1, 2. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 8, 8.

Phalæna-Noctua Hectus, *Linn. Syst. Nat.* ii. 833. *Faun. Suec.* 1148. *Stew. El. Nat. Hist.* ii. 206. *Donov. Nat. Hist. Brit. Ins.* viii. 60, pl. 274, f. 3 (mas). *Turt. Syst. Nat.* iii. 340.

Hepialus Jodutta, *Fabr. Mant. Ins.* ii. 134, 2. *Schr. Faun. Boic.* ii. 303. *Borkh. Schmett.* iii. 160, 46. *Haw. Lep. Brit.* (fœm).

Bombyx Jodutta, *Wien. Verz.* 61, 6.

Bombyx Hectus, *Hübn. Bomb.* pl. 49, f. 208 (mas), 209 (fœm).

Bombyx lupulina, *Hübn. Bomb.* i. 27, pl. 4, f. T. S.

Noctua Nemorosa, *Esp. Schmett.* iv. 30, pl. 81, f. 5 (mas).

Noctua Jodutta, *Esp. Schmett.* iv. 30, pl. 81, f. 6.

Phalæna clavipes, *Deg. Ins.* i. pl. 7, f. 11; vii. pl. 44, f. 14.

Bombyx Hecta, *Wien. Verz.* 61, 4.

Hepialus Hecta, *Borkh. Schmett.* iii. 148, 40.

Hepialus nemorosa, *Borkh. Schmett.* iii. 159, 44.

Noctua Hecta, *Esp. Schmett.* iii. pl. 80, f. 5—7.

Hepiolus Hectus, *Ochs. Schmett. von Eur.* iii. 116, 7; iv. 51, 7. *Meig. Handb.* 147, 3. *Syst. Beschr. Eur. Schmett.* iii. 57, 4, pl. 89, f. 6, 7.

Phalæna-Hepialus Hecta, *Gmel. ed. Syst. Nat.* i. 5, 2617, 85.

Phalæna-Hepialus Jodutta, *Gmel. ed. Syst. Nat.* i. 5, 2617, 1301.

Hepiolus Hectus, *Ochs. Schmett. von Eur.* iii. 116, 7; iv. 51, 7.

Gazorycta Hecta, *Hübn. Verz. Schmett.* 198, 2020.

a—w. England. From Mr. Stephens' collection.

x—dd. England.

ee, ff. Europe. From M. Becker's collection.

6. Hepialus Sylvinus.

Alæ anticæ maris *rufo lutescentes*, fœminæ *cinnamoneæ, lineis duabus obliquis albis; posticæ cinereæ.*

Hepialus Sylvinus, *Curt. Brit. Ent.* iv. pl. 185. *Steph. Ill. Brit. Ent. Haust.* ii. 7. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 7, 4.

Phalæna-Noctua Sylvina, *Linn. Syst. Nat.* ii. 834. *Faun. Suec.* ii. 1151.

Phalæna-Hepialus Crux, *Gmel. ed. Syst. Nat.* i. 5, 2618, 1303.

Hepialus angulatus, *Fabr. Sp. Ins.* ii. 506.
Hepialus Crux, *Fabr. Mant. Ins.* ii. 135, 6; *Ent. Syst.* iii. 2, 7, 7. *Rossi*,
Bombyx Sylvinus, *Wien. Verz.* 61, O, 2.
Bombyx Hamma, *Wien. Verz.* 61, O, 5. *Borkh. Schmett.* iii. 153, 42.
Noctua Sylvina, *Esp. Schmett.* iv. pl. 82, f. 2—4.
Noctua Flina, *Esp. Schmett.* iv. pl. 82, f. 5—7.
Hepialus Fauna, *Schr. Faun. Boic.* ii. 1, 305.
Hepialus Hamma, *Schr. Faun. Boic.* ii. 1, 302.
Bombyx Humma, *Hübn. Bomb.* 152, 2, pl. 49, f. 207; pl. 59, f. 2, 52.
Bombyx lupulinus, *Hübn. Bomb.* pl. 48, f. 205 (mas), f. 206 (fœm).
Hepialus lupulinus, *Haw. Lep. Brit.* 140.
Noctua Flina, *Esp. Schmett.* iv. pl. 82, f. 5—7.
Hepiolus Sylvinus, *Ochs. Schmett. von Eur.* iii. 109, 4; iv. 50, 4. *Meig. Handb.* 147, 2, pl. 11, f. 6; *Syst. Beschr. Eur. Schmett.* iii. 56, 2, pl. 89, f. 4.
Triodia Sylvina, *Hübn. Verz. Schmett.* 198, 2021.
Cossus Sylvinus, *God. Lép. de France*, iv. 43, pl. 2, f. 1—5.

a—r. England. From Mr. Stephens' collection.
s—aa. England.
bb, cc. Europe. From M. Becker's collection.
dd, ee. Europe. From Mr. Milne's collection.
ff—hh. France.

7. Hepialus Ganna.

Alæ anticæ fuscæ, fascia ramosa punctisque argenteis; posticæ cinereæ.

Bombyx Ganna, *Hübn. Bomb.* 154, 9, pl. 50, f. 215.
Gazoryctra Ganna, *Hübn. Verz. Schmett.* 198, 2018.
Hepiolus Ganna, *Ochs. Schmett. von Eur.* iii. 113, 5.
Hepialus Ganna, *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 6, 2.

Swiss Alps.

8. Hepialus Pyrenaicus.

Alæ anticæ fuscæ maculis plurimis inæqualibus albidis; posticæ fuscæ. Fœm.—*Subaptera.*

Hepialus Pyrenaicus, *Donzel, Ann. Soc. Ent. Fr.* vii. 429, pl. 12, f. 1, 2. *Duponch. Suppl. Lép. France*, 214, pl. 68, f. 3. *Herr.-Schæff. Samml. Eur. Schmett. Text*, ii. 7, 5.

Mont-Louis, Eastern Pyrenees.

North America.

9. Hepialus argenteo-maculatus.

Fusco-ochraceus, vel cinereo-fuscus; alæ anticæ pallidæ, ochraceo vel fusco fasciatæ, guttisque duabus prope basim argenteis; posticæ rubro vel cinereo-ochraceæ, immaculatæ.

Hepiolus argenteo-maculatus, *Harris, Cat. Hitchcock's Report ed.* i. 591; *ed.* 2, 592; *Report on Ins. injur. to Vegetat.* 295. *Agassiz, on Lake Superior*, 389, pl. 7, f. 6: *Gosse, Canadian Naturalist*, 248.

Massachusetts. Lake Superior.

Var. *Cervinus; antennæ capitis latitudine vix longiores. Alæ testaceæ aut albidæ; anticæ fasciis tribus maculaque cervinis maculisque basim versus duabus argenteis nigro marginatis.*

Var. Fawn-colour. Antennæ hardly longer than the breadth of the head. Wings testaceous or whitish. Fore wings almost angular at the tips, with three irregular and incomplete fawn-coloured bands, and with two silvery black-bordered spots near the base; first and second bands united in the disk, and having a fawn-coloured spot between them on the costa. Length of the body 9—14 lines; of the wings 24—40 lines.

a—e. St. Martin's Falls, Albany River, Hudson's Bay. Presented by Dr. Barnston.

f. West Canada. From Mr. Stevens' collection.

South America.

10. Hepialus pallens.

Totus pallide flavo-cinereus; alæ anticæ cinereæ, punctis minutis obscurioribus adspersæ; posticæ pallidiores.

Hepialus pallens, *Blanch. Gay, Hist. Chile*, vii. 69, 1. *Atlas, Zool. Ent. Lép.* pl. 4, f. 5.

Coquimbo.

11. HEPIALUS VENOSUS.

Cinereo-pilosus; antennæ flavescentes; alæ anticæ cinereæ, lineis transversis sinuosis pallidis, fusco marginatis; posticæ fusco-cinereæ, punctis nonnullis pallidioribus.

Hepialus venosus, *Blanch. Gay, Hist. Chile*, vii. 70, 2. *Atlas, Zool. Ent. Lép.* pl. 4, f. 6.

Coquimbo.

Africa.

12. HEPIALUS CRASSUS.

Alæ anticæ albæ, fusco cinereo badioque variæ, apice irregulariter albo, lunula magna fusca; posticæ subcinereo-fuscescentes.

Phalæna (Noctua) crassa, *Drury, Ill. Nat. Hist. Exot. Ins.* iii. 2, pl. 2, f. 1. *App.* iii.

Hepialus crassus, *Westw. ed. Drury*, iii. 2, pl. 2, f. 1.

Sierra Leone.

Asia.

13. HEPIALUS MACILENTUS.

Mas. *Alæ anticæ rubræ, fasciis duabus obliquis postice convenientibus maculisque costalibus argenteis; alæ posticæ nigricantes, ad margines rubræ.*

Hepialus macilentus, *Eversmann, Bull. Soc. Imp. Nat. Mosc.* 1851, No. 2, 626, 14.

Allied to *H. Ganna*.

Tckoutzk.

14. HEPIALUS NEPALENSIS.

Testaceus; antennæ fulvæ; alæ anticæ fasciis tribus perobliquis subobsoletis guttularibus fuscis.

Hepialus nepalensis, *Stephens, MSS.*

Testaceous. Antennæ tawny, hardly longer than the breadth of the head. Fore wings with three very oblique bands of indistinct brown dots. Length of the body 8? lines; of the wings 20 lines.

a. Nepaul. Presented by Major-Gen. Hardwicke.

15. Hepialus Indicus.

Mas. *Pallide fuscus; alæ anticæ totæ, posticæ apud costæ apicem albido variæ, illæ vitta interrupta arcuata discali nigricante.*

Hepialus Indicus, *Stephens, MSS.*

Male. Pale brown. Fore wings varied with whitish marks, and with a curved interrupted discal blackish stripe. Hind wings with whitish marks about the tip of the costa. Length of the body 9 lines; of the wings 24 lines.

Hindostan. In Mr. Stephens' collection.

16. Hepialus Australasiæ.

Fœm. *Cervinus.; abdomen albido-testaceum; alæ longæ, posticæ albido-testaceæ.*

Hepialus Australasiæ, *Stephens, MSS.*

Female. Fawn-colour. Antennæ about half the length of the thorax. Abdomen and hind wings whitish testaceous. Wings long. Fore wings extremely oblique along the exterior border. Length of the body 8—10 lines; of the wings 22—28 lines.

a—c. Sydney. Presented by E. Doubleday, Esq.
d, e. Sydney. Presented by Dr. Sinclair.
f—j. Australia. From Mr. Milne's collection.
k, l. Australia.
m, n. New South Wales. From Mr. Wood's collection.

Genus 2. ONCOPERA.

Mas et fœm. Corpus sat validum. Caput, thorax, femora et tibiæ pilosissima. Palpi obsoleti. Antennæ simplices, subclavatæ, capitis latitudine non longiores. Abdomen alas posticas paullo superans. Pedes validi; tibiæ posticæ calcaribus duobus posticis minimis. Alæ sat angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo. *Mas.*—Tibiæ posticæ pilis longissimis fasciculatæ.

Oncopera, *Stephens, MSS.*

Male and female. Body moderately stout. Head, thorax, femora and tibiæ very pilose. Proboscis and palpi obsolete. Antennæ simple, subclavate, as long as the breadth of the head, alike

in both sexes. Abdomen extending a little beyond the hind wings. Legs stout; hind tibiæ with two very minute apical spurs. Wings rather narrow. Fore wings straight along the costa, rounded at the tips, very oblique along the exterior border; veins much like those of *Hepialus*. *Male.*—Hind tibiæ tufted with very long hairs.

1. ONCOPERA INTRICATA.

Mas et fœm. *Fusca; antennæ fulvæ; abdomen et pedes testacea; alæ anticæ fasciis tribus costalibus cinereis fusco strigatis apud discum connexis; posticæ cinereo-fuscæ, pallidiores, basi subhyalinæ.*

Oncopera intricata, *Stephens, MSS.*

Male and female. Antennæ tawny. Abdomen and legs testaceous. Fore wings with an irregular cinereous brown-striped figure, which extends along the whole length, and is thrice joined to the costa. Hind wings paler, cinereous-brown, almost hyaline towards the base. Length of the body 7—9 lines; of the wings 14—18 lines.

a—c. Van Dieman's Land. Presented by R. Butler, Esq.
d—f. Van Dieman's Land. From Mr. A. J. Smith's collection.
g, h. Van Dieman's Land. Presented by E. Doubleday, Esq.
i, j. Van Dieman's Land. Presented by Morton Allport, Esq.
k—p. Van Dieman's Land. Presented by Major-Gen. Hardwicke.

Genus 3. DALACA.

Mas et fœm. Corpus sat gracile, subpilosum. Palpi obsoleti. Antennæ validæ, setaceæ, subcompressæ. Abdomen alas posticas superans. Pedes sat graciles, subpilosi. Alæ sat angustæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore sat obliquo vix convexo. *Mas.*—Antennæ subserratæ, thorace non longiores. Tibiæ posticæ pilis longis fasciculatæ. *Fœm.*—Antennæ simplices, thorace vix breviores.

Male and female. Body rather slender, slightly hairy. Proboscis and palpi obsolete. Antennæ stout, setaceous, somewhat thickened and flattened. Abdomen extending somewhat beyond the hind wings. Legs rather slender, slightly pilose. Wings rather narrow. Fore wings straight along the costa, somewhat rounded at the tips, rather oblique, and very slightly convex along

the exterior border; veins much like those of *Hepialus* in structure. *Male.*—Antennæ minutely serrated, as long as the thorax. Hind tibiæ tufted with long hairs. *Female.*—Antennæ nearly as long as the thorax.

1. Dalaca nigricornis.

Mas. *Testacea; antennæ nigræ; alæ anticæ fuscæ, strigis variis ex parte confluentibus albidis; posticæ subobscuriores, basi pallidiores, fimbria alba.*

Male. Testaceous. Antennæ black. Fore wings brown, with irregular partly confluent whitish marks, which extend along the costa and along the interior border, and form an oblique exterior band. Hind wings rather darker than the fore wings, paler towards the base; fringe white. Length of the body 4 lines; of the wings 11 lines.

a. Chili. From Mr. Cuming's collection.

2. Dalaca exul.

Fusca; abdomen thorace obscurius, apice pallidum; alæ anticæ nigro-fuscæ macula basali nigra, vitta postica maculisque marginalibus albis.

Epiolus exul, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 40, f. 43.

Brown. Abdomen mostly darker than the thorax, pale towards its tip. Fore wings blackish brown, with a black spot at the posterior base, with a white stripe extending along half the length near the interior border, narrower towards its tip, which is angular; a row of white dots along the exterior border, near which in front there is a short band of three white spots. Hind wings pale ferruginous-brown.

Africa.

3. Dalaca Nomaqua.

Fusca; antennæ fulvæ; pectus, abdomen, pedes et alæ posticæ testacea; alæ anticæ fascia irregulari subobliqua albida.

Hepialus Nomaqua, *MSS.*

Brown. Antennæ tawny. Pectus, abdomen, legs and hind wings testaceous. Fore wings with an irregular slightly oblique

whitish stripe, which varies in breadth and shape, and is more or less notched in front. Length of the body 6—7 lines; of the wings 14—16 lines.

a—f. South Africa. Presented by Dr. A. Smith.
g. South Africa. From M. Becker's collection.

4. DALACA? EXCLAMANS.

Mas. *Cervina; alæ anticæ guttis strigisque abbreviatis obscurioribus confertim conspersæ, lituraque! alba discali ornatæ; posticæ pallide rufæ.*

Epialus exclamans, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 145.

Male. Fawn-colour. Fore wings thickly sprinkled with darker dots and short streaks, and adorned with a discal white! mark. Hind wings pale red.

Brazil.

5. DALACA? EPIGRAMMA.

Fœm *Cervina; abdomen fuscescens; alæ anticæ basi obscuriores, apud marginem interiorem pallidiores, nigro sparse guttatæ, fasciis duabus angustis obliquis albis vittaque subarcuata testacea ornatæ; posticæ pallide rufæ.*

Epialus epigramma, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 146.

Female. Fawn-colour. Abdomen brownish. Fore wings darker towards the base, paler towards the tip of the interior border, thinly sprinkled with black dots, adorned beyond the middle with two white slender oblique bands, the inner one connected with a testaceous slightly curved stripe, which proceeds from the base of the wing to the hind border. Hind wings pale red.

Brazil.

Genus 4. ELHAMMA.

Mas. Corpus robustum. Palpi porrecti, caput non superantes; articulus 3us minutus, brevi-conicus. Antennæ setaceæ, validæ, subcompressæ, subserratæ, thorace breviores. Abdomen alas posticas triente superans. Pedes validi, pilosi; tibiæ posticæ calcaribus

duobus minutis apicalibus. Alæ sat angustæ, non longæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore subobliquo.

Male. Body robust. Palpi porrect, extending as far as the head; third joint minute, short, conical. Antennæ setaceous, stout, somewhat compressed, very minutely serrated, much shorter than the thorax. Abdomen extending for full one-third of its length beyond the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings rather narrow, not long. Fore wings straight along the costa, slightly rounded at the tips, slightly oblique along the exterior border; structure of the veins much like that of *Hepialus*.

1. Elhamma subvaria.

Mas. *Cervina; caput et thorax obscure fusca; antennæ testaceæ; pedes supra obscure fusci; alæ ex parte cinereæ annulisque cinereis quadrifasciatæ, posticæ vix fasciatæ.*

Male. Fawn-colour. Head and thorax dark brown. Antennæ testaceous. Legs partly dark brown above. Wings partly gray and with four oblique bands of small gray ringlets; these bands are very indistinct on the hind wings, which are occasionally wholly gray. Length of the body 8—10 lines; of the wings 18—24 lines.

a—c. Van Dieman's Land. Presented by — Walcott, Esq.

2. Elhamma inconcluso.

Mas. *Fusca; antennæ fulvæ, subserratæ, thorace breviores; abdomen cervinum, apice fuscum; alæ non longæ, anticæ guttis nigricantibus striga fasciaque albis fasciaque cervina, posticæ cervinæ.*

Var. β. *Alæ anticæ cervinæ guttis fasciaque nigricantibus.*

Male. Brown. Antennæ tawny, very minutely serrated, much shorter than the thorax. Abdomen and hind wings fawn-colour, the former brown towards the tip. Wings not long. Fore wings with blackish dots, with a white streak, extending from the base to the tip, and with two exterior indistinct oblique bands, the one fawn-colour, the other whitish.

Var. β. Fore wings fawn-colour, with blackish dots; exterior bands obsolete; a more oblique imperfect blackish band extending from the tip of the wing to the disk. Length of the body 8 lines; of the wings 18 lines.

a, *b*. Sydney. Presented by E. Doubleday, Esq.
c. Sydney. Presented by Dr. Sinclair.
d—*f*. Australia. From Mr. Milne's collection.
g, *h*. Australia.

3. Elhamma signata.

Mas. *Fusca; antennæ testaceæ aut fulvæ, thorace vix breviores; pectus, abdomen, pedes et alæ posticæ testacea; alæ anticæ strigis variis discalibus nonnunquam ex parte confluentibus argenteis.*

Male. Brown. Antennæ testaceous or tawny, distinctly serrated, nearly as long as the thorax. Pectus, abdomen, legs and hind wings testaceous. Fore wings with irregular silvery discal marks of various and varying form, and occasionally partly confluent. Length of the body 8—10 lines; of the wings 20—24 lines.

a, *b*. New Zealand. Presented by the Rev. W. Colenso.
c, *d*. New Zealand. Presented by Colonel Bolton.

4. Elhamma determinata.

Mas. *Fusca; palpi caput superantes, articulo 3o elongato; antennæ albido-testaceæ, thorace non breviores; abdomen testaceum; alæ fulvæ, anticæ maculis plurimis plagaque subcostali fuscis striyaque nonnunquam obsoleta argentea; posticæ vix maculatæ.*

This species exceeds *E. signata* in the development of the peculiar characters of the genus. *Male*.—Brown. Palpi extending some distance beyond the head; third joint elongate. Antennæ whitish testaceous, full as long as the thorax. Abdomen stout, testaceous, oblanceolate. Wings tawny. Fore wings with numerous brown spots and with a brown subcostal patch which is adorned with an oblique silvery streak. Hind wings with very indistinct brownish spots, paler at the base. Length of the body 12 lines; of the wings 28 lines.

a. Swan River. Presented by Sir J. Richardson.

5. Elhamma antipoda.

Pallide fuscus; alæ anticæ basi obscuriores, fasciis quinque incompletis obliquis e guttis nigris albo ex parte marginatis: posticæ paullo obscuriores, fasciis duabus aut tribus angustis incompletis obliquis subundulosis nigricantibus.

Epiolus antipoda, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 40, f. 44.

Pale brown. Fore wings rather darker near the base, with five irregular incomplete oblique bands composed of black partly white-bordered dots. Hind wings a little darker than the fore wings, with two or three slender incomplete oblique slightly undulating blackish bands.

New Zealand.

Genus 5. FRAÜS.

Mas. Corpus sat gracile. Caput et thorax pilosissima. Palpi obsoleti. Antennæ mediocriter pectinatæ, thorace non breviores. Abdomen alas posticas paullo superans. Pedes graciles, pilosi; tibiæ posticæ pilis longis fasciculatæ. Alæ angustæ, non longæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Fraüs, *Stephens, MSS.*

Male. Body moderately slender. Head and thorax very pilose. Palpi obsolete. Antennæ moderately pectinated, full as long as the thorax. Abdomen extending a little beyond the hind wings. Legs slender, pilose; hind tibiæ tufted with long hairs. Wings narrow, not long. Fore wings straight in front, rounded at the tips, moderately oblique along the exterior border; structure of the veins much like that of *Hepialus*.

1. Fraüs simulans.

Mas. *Cervina; caput et thorax ferruginea; antennæ albidæ ramis fuscis; alæ anticæ vitta strigisque posticis diffusis argenteis.*

Fraüs simulans, *Stephens, MSS.*

Male. Fawn-colour. Head and thorax ferruginous. Antennæ whitish, with brown branches. Fore wings with an irregular silvery stripe near the costa, and with some slight diffused silvery marks hindward. Length of the body 4 lines; of the wings 10 lines.

a. Van Dieman's Land. Presented by E. Doubleday, Esq.
b. Van Dieman's Land. From Mr. A. J. Smith's collection.

2. Fraus? nanus.

Parvus, totus testaceus.

Epiolus nanus, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 40, f. 46, (1853).

Small. Body and wings wholly testaceous.

Country unknown.

Genus 6. GORGOPIS.

Mas. Corpus sat gracile. Palpi longiusculi, sat graciles, caput superantes; articulus 3us elongatus. Antennæ sat late pectinatæ, thorace paullo longiores. Abdomen alas posticas paullo superans. Pedes gracillimi, subpilosi. Alæ angustæ, non longæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore vix obliquo.

Gorgopis, *Stephens, MSS.*
Gorgopis, p., *Hübn. Verz. Schmett.*

Male. Body rather slender. Palpi rather long and slender, extending beyond the head; third joint elongated. Antennæ rather deeply pectinated, a little longer than the thorax. Abdomen extending a little beyond the hind wings. Legs very slender, slightly pilose. Wings narrow, not long. Fore wings straight in front, slightly rounded at the tips, very slightly oblique along the exterior border.

1. Gorgopis Libania.

Fusco-cervina; antennæ, abdomen et alæ posticæ testacea; alæ anticæ vitta lata brevi discali testacea.

Phalæna-Bombyx Libania, *Cram. Pap. Exot.* iv. 128, pl. 356, f. F.
Gorgopis Libania, *Hübn. Verz. Schmett.* 198, 2016.

Cape.

a. Port Natal. From M. Gueinzius' collection.

2. Gorgopis Caffra.

Mas. *Cervina; caput et thorax fuscescentia.* Fœm.—*Alæ subcinereæ.*

Gorgopis Caffra, *Stephens, MSS.*

Male. Dull fawn-colour, smaller than *G. Libania.* Head and thorax brownish. Abdomen and hind wings rather paler than the fore wings. *Female.*—Wings almost cinereous. Length of the body 6 lines; of the wings 14 lines.

a. South Africa. Presented by Dr. A. Smith.
b. Caffraria. From M. Becker's collection.
c. Cape. From Mr. Dregé's collection.

Genus 7. PHASSUS.

Corpus sat gracile. Palpi obsoleti. Antennæ graciles, filiformes, simplices, capitis latitudine duplo longiores. Abdomen longissimum, subcylindricum, alas posticas longe superans. Pedes validi, pilosi. Alæ longæ, angustæ; anticæ apud costam rectæ, apice vix acuminatæ, margine exteriore perobliquo.

Epiolus, p., *Boisd.*; *Herr.-Schæff.*
Phassus, *Stephens, MSS.*

Body rather slender. Proboscis and palpi obsolete. Antennæ slender, filiform, about twice longer than the breadth of the head. Abdomen very long, almost cylindrical, extending from more than one-third to three-fourths of its length beyond the hind wings. Legs rather stout; femora and tibiæ pilose. Wings long and narrow. Fore wings straight along the costa, hardly acuminated at the tips, extremely oblique along the exterior border; veinlet between the third inferior vein and the discal areolet upright; fore veinlet of the two behind the third inferior vein slightly curved.

Mexico.

1. PHASSUS ARGENTIFERUS.

Mas. *Fuscus; abdomen alas posticas dimidio superans; alæ longæ, mediocriter latæ, anticæ albido suffusæ, vitta angulata maculisque costalibus obscure fuscis, liturisque quinque argenteis.*

Phassus argentiferus, *Stephens, MSS.*

Brown. Abdomen extending for half its length beyond the hind wings. Wings long, moderately broad. Fore wings with a whitish tinge, with a dark brown deeply angular stripe, and with some dark brown costal spots; two silvery marks by the costa, and three of various size and shape in the disk. Length of the body 24 lines; of the wings 56 lines.

a. Mexico. From Mr. Hartweg's collection.

South America.

A. Alæ fuscæ.
A. Statura maxima. - - - - giganteus, *Boisd.*
B. Statura mediocris. - - - agrionides, *Walk.*
B. Alæ cervinæ. - - - - - transversus, *Walk.*

2. Phassus giganteus.

Pallide ferrugineo-fuscus ; alæ basi obscuriores, anticæ guttis tribus costalibus nigris testaceo marginatis, necnon strigis maculisque nonnullis transversis subobliquis fuscis.

Epiolus giganteus, *Boisd.* ; *Herr.-Schæff. Lép. Exot., Sp. Sér.* 1, pl. 40, f. 45.

Pale ferruginous-brown. Wings darker at the base. Fore wings with three costal black testaceous-bordered dots, and with several transverse slightly oblique brown streaks and spots, which are most numerous towards the tips.

Equinoctial America.

3. Phassus agrionides.

Mas. *Fuscus ; antennæ testaceæ ; abdomen alas posticas longissime superans ; alæ pallide fuscæ, apice obscuriores, anticæ subreticulatæ.*

Male. Brown. Antennæ testaceous. Abdomen rather paler than the thorax, almost bare, extending for three-fourths of its length beyond the hind wings. Wings pale brown, with dark brown tips. Fore wings slightly reticulated, with numerous transverse more or less curved streaks, between the veins ; these streaks are paler on the inside and darker on the outside. Length of the body 12 lines ; of the wings 24 lines.

a. Brazil. From M. Becker's collection.

4. Phassus transversus.

Mas. *Cervinus, gracilis ; antennæ subpectinatæ, thorace multo breviores ; abdomen longissimum, alas posticas dimidio superans ; pedes pilosi ; alæ anticæ maculis nonnullis parvis transversis oblongis nigricantibus albido notatis.*

Male. Fawn-colour, slender. Antennæ minutely pectinated, much shorter than the thorax. Abdomen very long, extending for half its length beyond the hind wings. Legs pilose. Fore wings with several small transverse oblong blackish spots, whose disks are whitish. Length of the body 10 lines; of the wings 21 lines.

Rio Janeiro. In Mr. Fry's collection.

Africa.

5. PHASSUS TESSELLATUS.

Fem. Cervinus aut ferrugineus; abdomen alas posticas longe superans; alæ anticæ fasciis nonnullis testaceis strigisque plurimis transversis albido-testaceis extus fulvo marginatis.

Epialus tessellatus, *Boisd. Herr.-Schäff. Lép. Exot. Sp. Sér.* 1, f. 147.

Female. Fawn-colour or ferruginous. Fore wings with several testaceous bands, and with numerous whitish testaceous transverse streaks, which are bordered with tawny along the outer side. Abdomen extending for two-thirds of its length beyond the hind wings.

a, b. Port Natal. From Mr. Tucker's collection.

Asia.

6. PHASSUS SIGNIFER.

Fuscus; pedes pilositssimi; alæ anticæ vitta discali latâ angulatâ interrupta fasciaque obliqua exteriore obscure fuscis lituraque duabus argenteis.

Brown. Legs, including the tarsi, very pilose. Fore wings with a dark brown broad angular irregular and interrupted discal stripe, and with an oblique exterior dark brown band; also, with two silvery marks, one near the base, smaller than the other, and occasionally gilded. Length of the body 22—28 lines; of the wings 42—60 lines.

a. Silhet. From Mr. Argent's collection.
b, c. Ceylon. Presented by R. Templeton, Esq.
d. Sarawak, Borneo. From Mr. Horsburgh's collection.

Genus 8. CHARAGIA.

Corpus vix robustum. Palpi breves, tenues, caput non superantes. Antennæ simplices, setaceæ, capitis latitudine vix longiores. Abdomen alas posticas mediocriter aut longissime superans. Pedes graciles, late ciliati; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ sat latæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore subundulato mediocriter obliquo.

Hepialus, p., *Lewin*; *Doubleday*; *Boisduval*.

Body hardly robust. Palpi short, slender, not extending beyond the head. Antennæ simple, setaceous, hardly longer than the breadth of the head. Abdomen extending more or less beyond the hind wings. Legs slender, deeply ciliated; hind tibiæ with two very minute apical spurs. Wings moderately broad. Fore wings straight in front, acuminated at the tips, slightly undulating and more or less oblique along the exterior border; veins like those of *Hepialus* in structure.

A. Alæ anticæ virides.
  A. Alæ anticæ argenteo non fasciatæ.
    a. Alæ anticæ ferrugineo non fasciatæ. virescens, *Doubleday*.
    b. Alæ anticæ ferrugineo fasciatæ. rubroviridans, *Steph.*
  B. Alæ anticæ argenteo fasciatæ. Lamberti, *Steph.*
B. Alæ anticæ rufæ, viridi variæ.
  A. Alæ anticæ plaga excisa. Lewinii, *Steph.*
  B. Alæ anticæ plaga non excisa. lignivorus, *Lewin.*

1. CHARAGIA VIRESCENS.

Pallide virescens; antennæ fulvæ; abdomen albidum, alas posticas perpaullo superans; alæ latæ, longiusculæ; anticæ subfalcatæ, apud costam rectæ, margine exteriore subundulato mediocriter obliquo.

Hepialus virescens, *Doubleday*, *Duffenbach's New Zealand*, i. 284, 114.

Pale dull green. Antennæ tawny. Abdomen and hind wings whitish. Abdomen extending very little beyond the hind wings. Wings broad, rather long. Fore wings hardly falcate, straight in front, moderately oblique and very slightly undulating along the exterior border. Length of the body 20—22 lines; of the wings 42—48 lines.

a. New Zealand. Presented by J. G. Children, Esq.
b. New Zealand. From Mr. Earl's collection.

2. Charagia rubroviridans.

Testacea ; antennæ fulvæ, capitis latitudine paullo longiores ; abdomen alas posticas dimidio superans ; alæ longæ, latiusculæ, anticæ pallide viridescentes, fascia maculari perobliqua subobsoleta fusca, posticæ pallide rufescentes.

Hepialus rubroviridans, *Stephens, MSS.*

Testaceous. Antennæ tawny, a little longer than the breadth of the head. Abdomen extending for half its length beyond the hind wings. Wings long, rather broad. Fore wings dull pale green, with an indistinct macular very oblique brown band. Hind wings pale reddish. Length of the body 29 lines ; of the wings 58 lines.

a. New Zealand. Presented by Dr. Sinclair.

3. Charagia lignivora.

Fusca ; abdomen testaceum, apice fuscum ; alæ anticæ ferrugineo-fuscæ, plaga magna trigona discali fasciaque lata marginali viridibus.

Hepialus lignivorus, *Lewin, Prodr. Ent.* 17, pl. 16. *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 234.

Brown. Structure of *C. Lewinii*. Abdomen testaceous, brown towards the tip. Fore wings ferruginous-brown, with a large triangular green patch, which occupies the disk for more than half the length from the base, and with a broad marginal green band, which is shortened hindward. Length of the body 9 lines ; of the wings 20 lines.

a. Australia. From Mr. Stevens' collection.

4. Charagia Lewinii.

Ferruginea ; abdomen pallide rufescens, alas posticas dimidio superans ; alæ mediocriter latæ ; anticæ vitta viridi antice excisa postice dilatata apicem versus angustata et nonnunquam interrupta ; posticæ pallide rufæ.

Hepialus Lewinii, *Stephens, MSS.*

Ferruginous. Abdomen pale reddish, extending for half its length beyond the hind wings. Wings moderately broad. Fore

wings with a green stripe, which is deeply notched in front, dilated and angular behind, straitened and sometimes interrupted exteriorly. Hind wings pale red. Length of the body 14—15 lines; of the wings 24—26 lines.

a. Sydney. From Mr. Lambert's collection.
b, *c*. Sydney. Presented by E. Doubleday, Esq.

5. Charagia Lamberti.

Mas. *Læte viridis; abdomen album; alæ anticæ argenteo quinque notatæ, posticæ albæ.*

Hepialus Lamberti, *Stephens*, *MSS.*

Male. Structure of *Lewinii*. Bright green. Abdomen and hind wings white. Fore wings adorned with various silvery marks, which consist of a line along the costa, a slender straight oblique band beyond the middle, an exterior dot, and two streaks on the interior border, of which the outer one is angular.

a. New Holland. From Mr. Lambert's collection.

Genus 9. LETO.

Corpus sat gracile. Palpi brevissimi. Abdomen longum, subcylindricum, alas posticas superans. Pedes validi, toti pilosi. Alæ longæ, angustæ; anticæ posticis non longiores, apud costam subrectæ, apice acuminatæ, margine exteriore perobliquo, venis subtus fasciculatis; posticæ margine interiore latissime fimbriato.

Leto, *Hübn. Verz. Schmett.* (*Phalænæ Fodicantes Hepioli Caducæ*), 197.

Body rather slender. Palpi very short. Abdomen long, nearly cylindrical, extending rather beyond the hind wings. Legs stout, pilose to the tips of the tarsi. Wings long, narrow. Fore wings nearly straight in front, acuminated at the tips, extremely oblique along the exterior border, with tufts of long hairs on the veins beneath; veins much like those of *Hepialus* in structure. Hind wings as long as the fore wings, with long hairs on the veins; interior border fringed with very long hairs.

1. Leto Venus.

Cervina; abdomen læte rufum; alæ anticæ fusco variæ, argenteo confertim maculatæ; posticæ testaceæ, apices versus rufescentes; pedes rufi, albo vittati.

Phalæna Venus, *Cram. Pap. Exot.* iii. 167, pl. 286, f. C, D.
Leto Venus, *Hübn. Verz. Schmett.* 198, 2014.

a. South Africa. Presented by Dr. A. Smith.

Genus 10. DOLECTA.

Mas. Corpus vix robustum. Antennæ basim versus sat late pectinatæ, thorace vix breviores. Abdomen alas posticas dimidio superans, lateribus fasciculatis. Alæ angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

Dolecta, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1.

Male. Body hardly stout. Antennæ almost as long as the thorax, rather deeply pectinated towards the base. Abdomen tufted along each side, extending for half its length beyond the hind wings. Wings narrow. Fore wings straight in front, rounded at the tips, very oblique along the hind border.

1. Dolecta scariosa.

Mas. *Fusca; alæ anticæ pallide fuscæ, albo reticulatæ, nigro quadrifasciatæ; posticæ nigro bifasciatæ.*

Dolecta scariosa, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 148.

Male. Brown. Fore wings pale brown, reticulated with white, and having four black bands, the second entire, the rest interrupted or abbreviated. Hind wings with two irregular and incomplete black bands. Cilia alternately brown and white.

Rio Grande.

Genus 11. PORINA.

Mas. Corpus sat validum. Palpi porrecti, caput non superantes; articulus 3us conicus. Antennæ subpectinatæ, setaceæ, capitis latitudine paullo longiores. Abdomen alas posticas triente

superans. Pedes validi, pilosi. Alæ sat angustæ, vix longæ; anticæ apud costam subrectæ, apice subacuminatæ, margine exteriore perobliquo.

Porina, *Stephens*, *MSS.*

Male. Body rather stout. Palpi porrect, extending as far as the head; third joint conical. Antennæ minutely pectinated, setaceous, rather longer than the breadth of the head. Abdomen extending for one-third of its length beyond the hind wings. Legs stout, pilose. Wings hardly long, rather narrow. Fore wings almost straight in front, slightly acuminated at the tips, very oblique along the exterior border; veins much like those of *Hepialus* in structure.

1. Porina Novæ Zealandiæ.

Mas. *Cervina; abdomen et alæ posticæ testacea; alæ anticæ vitta discali argentea fusco marginata fasciisque duabus exterioribus angustis obliquis interruptis fuscis; posticæ fusco marginatæ.*

Porina Novæ Zealandiæ, *Stephens*, *MSS.*

Male. Fawn-colour. Abdomen and hind wings testaceous. Fore wings with an irregular discal silvery brown-bordered stripe, and with two exterior slender oblique interrupted brown bands. Hind wings with brownish borders. Length of the body 9—12 lines; of the wings 20—24 lines.

a—f. New Zealand. Presented by Dr. Sinclair.
g, h. New Zealand. From Mr. Churton's collection.
i. New Zealand. Presented by Capt. Parry.
j—m. New Zealand. Presented by Capt. Ross.

Genus 12. OXYCANUS.

Corpus robustum. Palpi distincti. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ longiusculæ, sat angustæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore perobliquo. *Mas.*—Antennæ mediocriter pectinatæ, thorace paullo longiores. Abdomen apice fasciculatum. *Fœm.*—Antennæ serratæ, thorace breviores.

Oxycanus, *Stephens*, *MSS.*

Body stout. Palpi distinct. Abdomen extending a little beyond the hind wings. Legs stout, pilose. Wings rather long

and narrow. Fore wings straight in front, slightly acuminated at the tips, extremely oblique along the exterior border; veins much like those of *Hepialus* in structure. *Male.*—Antennæ moderately pectinated, a little longer than the thorax. Abdomen tufted at the tip. *Female.*—Antennæ serrated, shorter than the thorax.

A. Alæ *maris* albo variæ. - - - Australis, *Stephens*.
B. Alæ non albo variæ.
A. Abdomen rufescens. - - - - rufescens, *Walk*.
B. Abdomen non rufescens.
a. Antennæ mediocriter pectinatæ. fuscomaculatus, *Steph*.
b. Antennæ breviter pectinatæ. - - subvarius, *Walk*.

1. Oxycanus australis.

Mas. *Fuscus, subtus cervinus; palpi breves, caput non superantes; antennæ fulvæ; alæ anticæ fasciis nonnullis obliquis pallidioribus liturisque plurimis necnon vitta discali albidis subargenteis.* Fœm.—*Cervina.*

Oxycanus australis, *Stephens, MSS.*

Male. Brown, fawn-colour beneath. Palpi short, not extending beyond the head. Antennæ tawny. Abdomen, legs and hind wings fawn-colour. Fore wings with several irregular oblique paler bands, and with many whitish somewhat silvery marks, and with a discal stripe of the same hue. *Female.*—Fawn-colour. Length of the body 12—18 lines; of the wings 34—38 lines.

a. Australia. From Mr. Stevens' collection.
b. Van Dieman's Land. From Mr. A. J. Smith's collection.
c, d. Van Dieman's Land. Presented by J. G. Children, Esq.
e, f. Australia. Presented by Major-Gen. Hardwicke.

2. Oxycanus fuscomaculatus.

Mas. *Fuscus; palpi caput superantes, articulo 3o longi-conico; antennæ testaceæ; alæ albido-fuscæ, anticæ strigis plurimis transversis guttisque marginalibus obscure fuscis; posticæ fasciis duabus guttularibus obscure fuscis.*

Var. β. *Alæ anticæ obscure fuscæ, strigis discalibus testaceis; posticæ cinereo-fuscæ, basi testaceæ.*

Oxycanus fuscomaculatus, *Stephens, MSS.*

Male. Brown. Palpi extending beyond the head; third joint elongate-conical, much shorter than the second. Antennæ testaceous. Wings whitish brown. Fore wings with numerous transverse dark brown marks, and with a marginal row of dark brown dots. Hind wings with two bands of dark brown dots, one submarginal, the other marginal. Length of the body 8—14 lines; of the wings 20—30 lines.

Var. β. Fore wings dark brown, with some irregular testaceous marks in the disk. Hind wings grayish brown, testaceous towards the base.

a—e. New Holland. Presented by Major-Gen. Hardwicke.
f. Van Dieman's Land. From Mr. A. J. Smith's collection.
g—i. Van Dieman's Land. Presented by J. G. Children, Esq.
j—l. Van Dieman's Land. Presented by — Walcott, Esq.
m—o. Van Dieman's Land. Presented by Capt. James C. Ross.
p—s. Van Dieman's Land. Presented by Morton Allport, Esq.
t. Moreton Bay. From Capt. Parry's collection.
u, v. Van Dieman's Land. Presented by R. Butler, Esq.

3. Oxycanus rufescens.

Mas. *Obscure fuscus; antennæ testaceæ; abdomen rufescens; pedes ex parte rufescentes; alæ anticæ fuscæ, ad costam obscuriores, fasciis obliquis cervinis nigro guttatis; posticæ pallidiores basi rufescentes.*

Male. Head, thorax and costa of the fore wings dark brown. Antennæ testaceous. Abdomen and legs mostly reddish. Fore wings brown, with imperfect oblique fawn-coloured bands, which contain blackish dots. Hind wings paler, reddish towards the base. Length of the body 10 lines; of the wings 26 lines.

a. Presented by Morton Allport, Esq.

4. Oxycanus subvarius.

Mas. *Fuscus; antennæ testaceæ subpectinatæ; abdomen fulvescens; alæ cervinæ, anticæ fasciis indistinctis annulisque cinereis, posticæ semihyalinæ.*

Male. Brown. Antennæ pale testaceous, very slightly pectinated. Abdomen tawny. Wings dull pale fawn-colour. Fore wings with indistinct oblique cinereous bands, which are alternate with rows of cinereous ringlets. Hind wings semihyaline. Length of the body 9—10 lines; of the wings 20—24 lines.

a—c. Van Dieman's Land. Presented by — Walcott, Esq.

Genus 13. PIELUS.

Corpus crassum. Palpi porrecti, clavati, caput superantes; articulus 3us brevissimus. Antennæ thoracis longitudine. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ longiusculæ, sat angustæ; anticæ apud costam subrectæ, apice subacuminatæ, margine exteriore perobliquo. *Mas.*—Antennæ sat late pectinatæ. *Fœm.*—Antennæ breviter pectinatæ.

Pielus, *Stephens, MSS.*
Cossus, p., *Donov.; Boisd.*
Epiolus, p., *Herr.-Schæff.*

Body thick. Palpi porrect, clavate, extending rather beyond the head; third joint very short. Antennæ as long as the thorax. Abdomen extending a little beyond the hind wings. Legs stout, pilose. Wings rather long and narrow. Fore wings almost straight along the costa, slightly acuminated at the tips, extremely oblique along the exterior border; veins like those of *Hepialus* in structure. *Male.*—Antennæ rather deeply pectinated. *Female.*—Antennæ very slightly pectinated.

1. PIELUS HYALINATUS.

Mas. *Luteus; abdomen subpurpurascens; alæ anticæ vitta basali, striga obliqua discali furcata fasciaque obliqua postice abbreviata albis; posticæ pallide purpureæ marginibus latis luteis.*

Epiolus hyalinatus, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 11, f. 50.

Male. Luteous. Abdomen, except towards the tip, tinged with pale purple. Fore wings near the base with a white longitudinal stripe, beyond which there is a white oblique discal streak, which is forked in front, and is succeeded by a more oblique white band, which extends to the tip of the wing, and is shortened hindward. Hind wings pale purplish, with broad luteous borders.

New Zealand.

Var. Mas. *Fuscus; antennæ fulvæ; abdomen pallide roseum, apice subfuscum; pedes ex parte rosei; alæ anticæ argenteo variæ, posticæ basi costaque subroseis.*

Var.? *Male.* Brown. Antennæ tawny. Abdomen pale rose-colour, tinged with brown towards the tip. Legs partly rose-colour. Fore wings with silvery marks as in *var.* α. Hind wings

pale rose-colour towards the base and in front. Length of the body 19 lines; of the wings 48 lines.

a. Van Dieman's Land. From Mr. A. J. Smith's collection.

2. Pielus Tasmaniæ.

Mas. *Cinereo-fuscus; alæ anticæ strigis plurimis minutis intricatis albidis, vitta discali fasciaque exteriore perobliqua argenteis nigro marginatis.*

Pielus Tasmaniæ, *Stephens, MSS.*

Male. Cinereous-brown. Fore wings with very numerous minute intricate whitish marks, with a discal irregular silvery stripe, and with an exterior very oblique silvery band; both these have blackish borders. Length of the body 17 lines; of the wings 38 lines.

a. Van Dieman's Land. Presented by — Walcott, Esq.

3. Pielus atripalpis.

Mas. *Nigro-fuscus; palpi nigri, apices versus ex parte testacei; antennæ ferrugineæ; alæ anticæ vitta discali fasciaque perobliqua argenteis.*

Pielus atripalpis, *Stephens, MSS.*

This species is very nearly allied to *P. labyrinthicus*, but may be distinguished by the darker fore wings, which have not the labyrinth-like marks of the species.

Blackish brown. Palpi black, partly testaceous at the tips. Antennæ ferruginous. Fore wings with a silvery stripe, which is occasionally united to an extremely oblique exterior silvery band; the latter, like the stripe, is sometimes accompanied by a silvery dot. Length of the body 22 lines; of the wings 58 lines.

Var. β. Fore wings with the silvery band interrupted and macular hindward.

a, *b*. Van Dieman's Land. Presented by Morton Allport, Esq.
c, *d*. Van Dieman's Land. From Mr. A. J. Smith's collection.

4. Pielus labyrinthicus.

Alæ anticæ fusco-cinereæ, strigis liturisque argenteis, lineisque numerosis intricato involutis labyrinthi formibus fuscis; posticæ fusco-rufescentes.

Cossus labyrinthicus, *Donov. Epit. Ins. New Holl.* pl. *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 236, 3.
Cossus argenteus, *Donov. Epit. Ins. New Holl.* pl. *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 237, 4.
Epiolus argenteus, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 41, f. 47, 48.

The two specimens figured by Herrich-Schæffer differ from all those in the Museum. In the male the basal white stripe is accompanied along the fore side by a row of white spots, and there are also white spots along the inner side of the submarginal white stripe. In the female the inner half of the submarginal white stripe is composed of spots.

Var. *Fuscus; alæ anticæ nigro-fuscæ, lituris variis intricatis pallidis, costæ basi flavescentes, vitta discali guttisque albis.* Mas.—*Alæ anticæ vitta obliqua guttisque subapicalibus albis.* Fœm.—*Alæ anticæ guttis albis nullis, vitta subapicali maculari.*

Var. Brown. Fore wings blackish brown, with various labyrinth-like marks, yellowish at the base of the costa; a white discal stripe extending from near the base to beyond half the length. *Male.*—Fore wings with a white oblique irregular subapical stripe, which as well as the discal stripe is accompanied in front by white dots. *Fœm.*—Fore wings without the white dots, the subapical stripe interrupted or macular. Length of the body 22—30 lines; of the wings 58—82 lines.

a, *b*. Australia. Presented by E. Doubleday, Esq.
c. Swan River. From Mr. Stevens' collection.
d. Australia. Presented by Major-Gen. Hardwicke.
e, *f*. Van Dieman's Land. Presented by Morton Allport, Esq.
g, *h*. Australia. Presented by the late Earl of Derby.
i. Adelaide. Presented by the Entomological Club.
j. Australia.

5. Pielus? sordidus.

Mas. *Nigro-fuscus; thorax postice et abdomen ferruginea; alæ anticæ fascia gracili obliqua discali undulosa nigrâ; posticæ pallide fuscæ, basi ferrugineæ.*

Epiolus sordidus, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 11, f. 49, (1853).

Male. Blackish brown. Abdomen and hind part of the thorax ferruginous. Fore wings with a slender oblique discal black band, which is recurved on its approach to the hind border, and undulates thence to the base. Hind wings pale brown, ferruginous at the base.

Country unknown.

Genus 14. DRACONIA.

Corpus gracile. Antennæ subpectinatæ? thorace non longiores. Abdomen longum, alas posticas superans. Alæ longæ, subfalcatæ, sat latæ; anticæ apud costam vix undulatæ, margine exteriore denticulato sat obliquo.

Draconia, *Hübn. Verz. Schmett.* (*Phalænæ Fodicantes Hepioli Caducæ*), 197.

Body slender. Antennæ slightly pectinated? not longer than the thorax. Abdomen long, extending for about one-fourth of its length beyond the hind wings. Wings long, slightly falcate, rather broad. Fore wings hardly undulating in front, denticulated and rather oblique along the exterior border.

This genus seems to connect the *Hepialidæ* with the *Bombycidæ*.

1. Draconia Peripheta.

Cervina; alæ fusco confertim lituratæ, guttis maculis plagisque limpidis.

———— ————, *Seba, Thes.* iv. pl. 37, f. 9, 10; pl. 57, f. 10, 11.
Phalæna Peripheta, *Cram. Pap. Exot.* ii. 54, pl. 131, f. G.
Draconia Peripheta, *Hübn. Verz. Schmett.* 197, 2013.

West Indies.

ADDENDA TO THE PRECEDING FAMILIES OF LEPIDOPTERA HETEROCERA.

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3. URANIA FULGENS.

c, *d*. Nicaragua. From M. De Latre's collection.

Page 6.

6. URANIA RHIPHEUS.

b. Madagascar. From M. Parzudaki's collection.

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3. NYCTALENION LUNUS.

g, *h*. Brazil. From the collection of the Zoological Society.

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EUSCHEMON RAFFLESIA.

Euschemon Rafflesia, *West. Gen. Diurnal Lepid.* 525, pl. 80, f. 5.

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CASTNIA CACICA.

Nigro-fusca; abdomen lateribus posticis apiceque rufis; alæ anticæ lunula discali, fascia lineari exteriore recta margineque exteriore albis; posticæ fascia denticulata, maculisque exterioribus rufis.

Castnia Cacica, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 143. Colombia.

CASTNIA HERRICHII.

Fusca; abdomen album; alæ anticæ macula divisa costali subapicali alba, fasciis duabus angulatis abbreviatis margineque exteriore pallide fuscis; posticæ fascia latissima guttisque exterioribus pallide flavis.

Castnia Herrichii, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 144.

Bolivia.

CASTNIA HECATE.

Fusca; abdomen pallide fuscum; alæ anticæ fascia ocellari strigaque integra obliquis connexis albis; posticæ croceæ, fascia undulata margineque exteriore nigris.

Castnia Hecate, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 139.

South America.

CASTNIA CRONIDA.

Nigro-fusca; caput albo biguttatum; thorax guttis duabus anticis maculisque humeralibus rufis; abdomen album; alæ anticæ costa basali rufa, vitta brevi discali macula subcostali guttisque submarginalibus albis; posticæ albæ, margine nigro-fusco albo guttato.

Castnia Cronida, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 142.

Surinam.

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CASTNIA FUTILIS.

Fusca, subtus testacea; alæ anticæ fasciis duabus indistinctis albidis; posticæ fascia obliqua latiore conspicua alba.

Very nearly allied to *C. Atymnus*. Brown, pale testaceous beneath. Proboscis tawny. Antennæ black, with luteous tips. Fore wings with two upright white bands, the first obsolete towards the hind border, the second macular; both of them most conspicuous beneath. Hind wings with a broader and oblique white band, testaceous beneath. Length of the body 12 lines; of the wings 34 lines.

a, *b*. Nicaragua. From M. De Latre's collection.

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5. Castnia Licus.

Var. β. Fore wings with a white complete band, and a short macular white band extending less than half across the wings from the costa at half the distance between the first band and the tips. Hind wings with an orange band extending along the exterior border, interrupted by the veins, and especially so towards the fore border, contiguous to a short white band, which extends from the disk to the interior angle.

a. Rio Negro, Brazil. From Mr. Wallace's collection.

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7. Castnia Eudesmia.

Castnia Eudesmia, *Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 140, 141.

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16. Castnia Pelasgus.

Orthia Augias, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér.* 1, pl. 5, f. 8.

This and the following species differ from the typical *Castniæ* in the clubs of the antennæ, which are not falcate.

Castnia paradoxa.

Alæ anticæ fulvæ fusco notatæ guttisque duabus subapicalibus cyaneis; posticæ ochraceæ, marginibus nigris albo guttatis.

Orthia paradoxa, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér.* 1, pl. 4, f. 16, 17.

Brazil.

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39. Castnia Linus.

Gazera Heliconioides, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér.* 1, pl. 4, f. 16.

The narrow, elongated and mostly hyaline wings distinguish this species from the typical form of *Castnia*.

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42. CASTNIA HESPERIARIS.

Nigricans; alæ ochraceo-fulvæ, nigro strigatæ et marginatæ, anticæ strigis duabus subcostalibus testaceis, posticæ subtus cinereæ lineis undulosis nigricantibus.

Blackish, stout. Antennæ clavate, falcate, luteous towards the tips. Abdomen towards the base with somewhat ferruginous hairs. Wings orange-tawny, bordered with black, and with interruptedly whitish ciliæ. Fore wings with a trifurcate black streak, which proceeds from the costa, and with two irregular oblique pale testaceous subcostal streaks. Hind wings with slight blackish streaks; under side gray, with several slender oblique blackish undulating bands. Length of the body 12 lines; of the wings 30 lines.

a, b. Mexico. From Mr. Glennie's collection.

43. CASTNIA YUCCÆ.

Nigro-fusca; antennæ capitatæ, non falcatæ; alæ basi subfulvescentes, anticæ fascia subapicali incompleta antice duplicata testacea, posticæ testaceo marginatæ.

Eudamus Yuccæ, *Boisd.*

Blackish brown. Antennæ capitate, not falcate; middle part whitish. Wings with a slight dingy tawny hue at the base. Fore-wings with a subapical irregular incomplete pale testaceous band, which is forked in front. Hind wings with pale testaceous borders; under side with hoary borders, and with a triangular white subcostal spot. Length of the body 10—12 lines; of the wings 24—28 lines.

This species connects the *Castniæ* with the *Hesperiæ*.

a, b. Georgia. From Mr. Milne's collection.

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SYNEMON SOPHIA.

Synemon Sophia, *Klug, Abhandlungen, der Koniglichen Akademie der Wissenschaften zu Berlin* (1850), 248, f. 1, 2.

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SYNEMON THERESA.

Synemon Theresa, *Klug, Abh. Konig. Akad. Wiss. Berl.* (1850), 249, f. 5, 6.

SYNEMON MOPSA.

Synemon Theresa, var.? *Klug.*

6. SYNEMON SELENE.

Corpus fuscum, subtus albidum; abdomen supra cinereum; alæ anticæ fusco-cinereæ, medio late fuscæ, ante apicem fusco maculatæ, fascia maculari transversa interrupta ante medium lunulaque media albis; posticæ fuscæ, luteo trifasciatæ; omnes subtus albido-testaceæ, fusco maculatæ.

Synemon Selene, *Klug, Abh. Konig. Akad. Wiss. Berl.* (1850), 249, 2, f. 3, 4.

Australia.

7. SYNEMON NAIS.

Mas. *Corpus cinereum, subtus pallidum; alæ anticæ supra fusco-cinereæ, fascia transversa sinuata ante medium maculaque media cinereis; posticæ luteæ, fascia transversa medio profunde sinuata baseos, maculis ad marginem margineque fuscis; omnes subtus luteæ, fusco maculatæ.*

Synemon Nais, *Klug, Abh. Konig. Akad. Wiss. Berl.* (1850), 250 4, f. 7.

Australia.

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1. CORONIS ORITHEA.

c, d. Spirito Sancto, Brazil. From Mr. Bates' collection.

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3. CORONIS JAPET.

c, d. Spirito Sancto, Brazil. From Mr. Bates' collection.

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6. Coronis Leachii.

b, *c*. Spirito Sancto, Brazil. From Mr. Bates' collection.

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Agarista Latinus.

g, *h*. Van Dieman's Land. Presented by Morton Allport, Esq.

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6. Agarista Ephyra.

Agarista Ephyra, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ*, *Sér.* 1, pl. 6, f. 27.

i, *j*. Van Dieman's Land. Presented by Morton Allport, Esq.

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8. Agarista Donovani.

Agarista Donovani, *Herr.-Schæff. Lep. Exot. Sp. Novæ*, *Sér.* 1, pl. 6, f. 28.

9. Agarista affinis.

Agarista affinis, *Herr.-Schæff. Lép. Exot. Sp. Novæ*, *Sér.* 1, pl. 6, f. 29, 130.

Agarista Semyron.

Atra ; thorax albo guttatus ; abdomen pedesque flava ; alæ anticæ guttis basalibus maculisque quinque albis, posticæ albo bimaculatæ.

Agarista Semyron, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 6, f. 24.

Sumatra.

Agarista Feisthamelii.

Atra ; thorax guttis duabus anticis vittisque quatuor posterioribus albidis ; abdomen postice albo fasciatum ; alæ anticæ strigis transversis cinereis, maculis duabus plagaque arcuata exteriore albis, posticæ disco albo.

Agarista Feisthamelii, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 6, f. 25.

Australia.

AGARISTA BIMACULATA.

Atra; thorax albo guttatus; alæ anticæ maculis tribus discalibus albis, macula basali parva, media mediocri, exteriore magna.

Agarista bimaculata, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 6, f. 26.

Mexico.

AGARISTA ERIOPIS.

Atra; thorax albo guttatus; abdomen luteum guttis dorsalibus atris; alæ anticæ guttis basalibus maculisque tribus discalibus albis, posticæ luteæ nigro marginatæ.

Agarista eriopis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 7, f. 31.

Madagascar.

AGARISTA PEDASUS.

Atra; thorax albo guttatus; abdomen sordide lutescens maculis trigonis dorsalibus apiceque nigris; alæ fimbria ex parte alba, anticæ macula discali fasciaque brevi obliqua incisa exteriore albis, posticæ disco albo.

Agarista Pedasus, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 7, f. 32.

Madagascar.

AGARISTUS AGRIUS.

Atra; caput et thorax anticus albo guttata; abdomen luteo fasciatum et marginatum; alæ anticæ fascia brevi subobliqua, posticæ vitta interrupta brevi latissima pallide flavis.

Agarista Agrius, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 7, f. 33.

Madagascar.

AGARISTA ZEA.

Atra; caput et thorax albo guttata; abdomen luteo fasciatum; alæ ciliis albo guttatis, anticæ guttis basim versus albis et cinereis fasciaque exteriore incisa subobliqua albis, posticæ subtus rufæ nigro marginatæ.

Agarista Zea, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 7, f. 34, 35.

Casamanca.

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1. EUSEMIA BELLATRIX.

Eusemia adulatrix, *Kollar, Von Hugel, Kasch.* 464, 1, pl. 20, f. 1.

g. North India. From Mr. James' collection.

4. EUSEMIA MACULATRIX.

e. Java. From Mr. Stevens' collection.

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8. EUSEMIA EUPHEMIA.

Heraclia Euphemia, *Hübn. Verz. Schmett.* 180, 1855.

i. Port Natal. From M. Gueinzius' collection.

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16. EUSEMIA TERMINATIS.

Mas. *Nigra; caput et thorax albo guttata; abdomen luteo fasciatum; pedes albo vittati, postici lutei; alæ anticæ guttis basalibus cunescentibus maculis quinque strigaque postica albis; posticæ luteæ nigro marginatæ.*

Male. Black. Head and thorax with white dots. Abdomen with luteous bands; tip luteous. Legs striped with white; hind legs mostly luteous. Wings with white apical ciliæ. Fore wings with bluish dots towards the base, with five white discal spots, and with a white streak on the interior border. Hind wings luteous, with broad black borders. Length of the body 10 lines; of the wings 26 lines.

a. ———? From the collection of the Zoological Society of London.

17. Eusemia transiens.

Mas. *Fusca, subtus lutea; antennæ nigræ; abdomen luteum; alæ anticæ rufo-fuscæ, lineis transversis ocellisque duabus anticis canis, fasciaque exteriore latâ alba; posticæ luteæ, nigro late marginatæ.*

Male. Brown. Antennæ black, slender, almost setaceous. Abdomen and legs luteous. Fore wings reddish brown, with some hoary transverse lines, and two very slender hoary ocelli in front of the disk, outer ocellus much larger than the inner one; a broad white band beyond the middle. Hind wings luteous, with broad black borders. Length of the body 8 lines; of the wings 16 lines. A link between *Eusemia* and the *Noctuites*.

a, *b*. Java. From Mr. Argent's collection.

1. Hecatesia fenestrata.

d, *e*. New Holland.

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1. Ægocera venulia.

h, *i*. Punjaub. Presented by General Hearsay.

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2. Ægocera rectilinea.

Ægocera rectilinea, *Guér. Icon. Règne Anim. Ins.* pl. 84, bis. f. 2.

3. Ægocera Latreillii.

Ægocera Latreillii, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér.* 1, pl. 5, f. 19.

Ægocera magna, *Cat. Lep. Het.* 56.

Casamanca.

Ægocera Mænas.

Nigricans; thorax albo guttatus; abdomen fasciis interruptis albis, apice luteum; alæ anticæ plagis duabus magnis flavis, posticæ albæ nigro marginatæ.

Ægocera Mænas, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér* 1, pl. 5, f. 20, 21.

Casamanca, Senegal.

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Genus 13. PHÆGORISTA.

Phægorista, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1.
Metagarista, *Cat. Lep. Het.* 60.

1. PHÆGORISTA LEUCOMELA.

Phægorista leucomela, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl, 5, f. 22, 23.
Metagarista triphænoides, *Cat. Lep. Het.* 61.
Senegal.

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3. ZYGÆNA MINOS.

Anthrocera Minos, *Ent. Annual* for 1855, 40, pl. f. 1.
g. West Coast of Ireland. Presented by F. Smith, Esq.

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12. ZYGÆNA SARPEDON.

Var. Z. Mannii, *Herr.-Schæff. Schm. Eur.* 109, 110.

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34. ZYGÆNA FILIPENDULÆ.

Dele Z. Mannii, &c.
uu, *ww*. Europe. From M. Becker's collection.
xx, *yy*. France.

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37. ZYGÆNA PEUCEDANI.

c. ———?

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38. ZYGÆNA EPHIALTES.

Var. Coronillæ.
f. Europe. From M. Becker's collection.

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39. Zygæna Lavandulæ.

Z. Medicaginis, p. 83, is a variety of this species.

40. Zygæna Rhadamanthus.

e. Pyrenees.

Page 93.

42. Zygæna Caffra.

Zygæna hottentota, *Boisd.*; *Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér.* 1, f. 218.

Page 102.

62. Zygæna Ganymedes.

Nearly allied to *Z. Fausta.*

Page 104.

69. Zygæna Centaureæ.

Nearly allied to *Z. Meliloti.*

Page 105.

77. Zygæna Serpyli.

Nigro-cyanescens; alæ anticæ maculis sex rubris, posticæ rubræ margine latiusculo nigro.

Zygæna Serpyli, *MSS.*

Nearly allied to *Z. Filipendulæ*, but with a broader black border on the hind wings.

Page 106.

1. Procris Statices.

Sphinx Atychia Statices, *Freyer, Schmett.* i. 118, 112, pl. 62, f. 1.
Atychia Statices, *Eversm. Lép. Faun. Volg. Ural.* 91, 2.

ss. Europe. From Dr. Frivaldsky's collection.

3. PROCRIS GLOBULARIÆ.

Sphinx Atychia Globulariæ, *Freyer, Schmett.* i. 119, 113, pl. 62, f. 2.

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11. PROCRIS RUFIVENTRIS.

c, d. Swan River. Presented by Sir J. Richardson.

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17. PROCRIS INFAUSTA.

a—d. Europe. From M. Becker's collection.
e. ——— ?

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18. PROCRIS CONCINNA.

Zygæna concinna, p. 80.
Procris contraria, p. 113.

d, e. Port Natal. From M. Gueinzius' collection.

19. PROCRIS NEBULOSA.

Mas et Fœm. *Albida; antennæ atræ; alæ marginibus subcinereis, ciliis nigricantibus.*

Ino nebulosa, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Novæ, Sér.* 1, f. 221.

Male and female. Whitish. Antennæ deep black. Legs black. Wings slightly grayish along the fringe, which is blackish. *Male.*—Antennæ deeply pectinated. Wings a little darker than those of the female. *Female.*—Antennæ subclavate, minutely serrated. Length of the body 4½ lines; of the wings 12—13 lines.

a. Port Natal. From M. Gueinzius' collection.
b. Cape. From M. Dregé's collection.

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1. POLLANISUS VIRIDIPULVERULENTUS.

i, j. Van Dieman's Land. Presented by Morton Allport, Esq.

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3. SYNTOMIS SCHŒNHERRI.

j. North India. From Mr. Stevens' collection.

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9. SYNTOMIS CERBERA.

i. Port Natal. From M. Becker's collection.

Page 124.

18. SYNTOMIS POLYDAMON.

Cacoethes Polidamon, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Hipocritæ Sphingiformes*), 170, 1756.—Cacoethes.—Corpus gracile Abdomen alas posticas dimidio superans. Pedes graciles, longiusculi. Alæ angustæ, sat longæ.

Page 125.

19. SYNTOMIS HUBNERI.

h. North India. From Capt. Reid's collection.

27. SYNTOMIS SIMPLEX.

f, *g*. Port Natal. From M. Guejnzius' collection.

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39. SYNTOMIS DIMINUTA.

Euchromia diminuta, p. 230.

Allied to *S. cyssea*.

40. SYNTOMIS TENEBROSA.

Glaucopis tenebrosa, p. 150.

41. SYNTOMIS CONFINIS.

Glaucopis confinis, p. 149.

Var. Male and female. Blackish brown. Thorax with two short luteous bands, the one in front, the other hindward. Abdomen somewhat dilated hindward, extending very little beyond the

hind wings, with three luteous stripes above, and with a discal luteous stripe beneath. Wings rather broad, somewhat rounded at the tips, with a blackish brown border, which in the fore wings is irregularly dilated or excavated, and extends from the costa across the tip of the discal areolet. *Male.*—Antennæ moderately pectinated. Border of the hind wings much broader than that of the female. *Female.*—Antennæ distinctly serrated. Length of the body 3½ lines; of the wings 10—11 lines.

Hindostan. In Mr. Saunders' collection.

41. Syntomis subaurata.

Glaucopis subaurata, p. 149.

42. Syntomis humeralis.

Mas et fœm. *Cyaneo-nigra; fasciis alba; thorax maculis duabus lateralibus rufis aut luteis; abdomen luteo unifasciatum; alæ limpidæ, anticæ apicibus macula discali dimidioque fere basali nigro-fuscis necnon macula basim versus limpida, posticæ limpidæ, anticæ testaceæ marginibus et nonnunquam fascia nigro-fuscis.*

Male and female. Bluish black. Head white in front. Thorax with a red spot at the base of each fore wing. Abdomen with a luteous band beyond the middle. Wings limpid, rather long and broad. Fore wings brownish, black about the tips, and for nearly half the length from the base, with the exception of a vitreous subdivided spot towards the costa; a blackish brown spot on the end of the discal areolet, connected with the same hue at the tip of the wing; external veins more or less clouded with blackish brown. Hind wings mostly bordered with blackish brown, testaceous in front, and with a blackish brown middle band of variable breadth. Length of the body 6 lines; of the wings 12—14 lines.

Var. β. Male. Thorax with two luteous spots. Fore wings with the dark hue on the discal areolet not connected with that at the tip of the wing. Hind wings without a middle band. *Male.*—Antennæ moderately pectinated. *Female.*—Antennæ indistinctly serrated.

Hindostan. In Mr. Saunders' collection.

43. SYNTOMIS SIGNATA.

Fœm. *Cyaneo-nigra; facies, thoracis fascia antica maculæque sex abdominisque fasciæ luteæ; alæ limpidæ, marginibus et anticarum vitta brevi strigaque transversa purpureo-nigris.*

Female. Structure of *S. humeralis*. Bluish black. Head luteous in front. Antennæ simple, subsetaceous, not serrated. Thorax luteous in front and at the base of each fore wing, and with two luteous spots on each side hindward. Abdomen with a luteous band on each segment. Wings limpid, moderately broad, with purplish black borders, which are dilated at the tips. Fore wings with a purplish black streak extending from the tip of the discal areolet to the apical border, and another from the hind side of the discal areolet to the interior border. Length of the body 5 lines; of the wings 13 lines.

Java. In Mr. Saunders' collection.

44. SYNTOMIS DOLOSA.

Mas. *Nigra; alæ cupreo-nigræ, anticæ striga subcostali fasciisque duabus exterioribus macularibus albis.*

Male. Black. Antennæ moderately pectinated. Wings cupreous-black, moderately broad. Fore wings with a white streak near the costa towards the base, and with two macular white bands, each consisting of three oblong spots, the fore spot of the outer band subdivided. Length of the body 5 lines; of the wings 14 lines.

a. North India. From Mr. James' collection.

45. SYNTOMIS VITREA.

Fœm. *Nigra; facies, thoracis vittæ quatuor abdominisque fasciæ luteæ; alæ lurido-vitreæ marginibus nigris, anticarum venis 1a 3aque inferioribus nigro marginatis.*

Female. Nearly allied to *S. fenestrata*. Black. Head luteous in front. Antennæ subsetaceous, very minutely serrated. Thorax with four imperfect luteous stripes. Abdomen with a luteous band on each segment, the subapical band very broad. Wings vitreous, moderately broad, with a slight lurid tinge, and with a narrow black border. Fore wings with the first and third inferior veins bordered with black. Hind wings with the black margin dilated in the middle of the exterior border. Length of the body 6½ lines; of the wings 15 lines.

Silhet. In Mr. Saunders' collection.

46. Syntomis fusiformis.

Fœm. *Nigro-fusca, robusta ; facies, thoracis fascia antica, pectoris maculæ quatuor abdominisque fasciæ duæ luteæ ; antennæ apice albæ ; alæ cupreo-nigræ, anticæ maculis quatuor, posticæ macula basali limpidis.*

Female. Structure of *S. annulata*. Blackish brown, rather stout. Head luteous in front. Antennæ black, minutely serrated, with white tips. Thorax with a luteous band in front. Pectus with two luteous spots on each side. Abdomen with two luteous bands, one at the base, the other beyond the middle. Wings moderately broad, with a slight cupreous tinge. Fore wings with four limpid spots; first and second before the middle, the hind one much longer than the fore one; third and fourth subapical, subdivided, the hind one much larger than the fore one. Hind wings with a limpid basal spot. Length of the body 5 lines; of the wings 13 lines.

Hindostan. In Mr. Saunders' collection.

47. Syntomis tenuis.

Mas. *Fusco-nigra ; facies flava ; antennæ apice albæ ; thorax fascia antica maculæque duæ luteæ ; abdominis segmenta luteo fasciatæ ; alæ anticæ maculis quinque, posticæ duabus luteis.*

Allied to *S. Polydamon*. *Male.*—Brownish black. Face yellow. Antennæ black, with white tips, minutely serrated, about three-fourths of the length of the body. Thorax with a luteous band in front, and a luteous mark at the base of each fore wing. Abdomen with a luteous band on each segment. Wings rather long and narrow. Fore wings with five elongated luteous spots; first basal; second and third intermediate; fourth and fifth subapical and subdivided. Hind wings with two luteous spots, the first basal and elongated, the second nearly round and much smaller. Length of the body 5 lines; of the wings 12 lines.

a. Celebes. From Madame Ida Pfeiffer's collection.

48. Syntomis teneiformis.

Mas. *Fusco-nigra ; thorax fascia antica maculisque sex luteis ; abdomen vittis duabus dorsalibus discoque ventrali luteis ; alæ cupreo-nigræ, anticæ maculis quatuor, posticæ disco basali limpidis.*

Structure of *S. Polydamon. Male.*—Brownish black. Antennæ black, slender, very minutely serrated, a little more than half the length of the body. Thorax with a luteous band in front, a luteous spot at the base of each fore wing, and two diverging luteous spots on each side hindward. Abdomen with two luteous dorsal stripes; under side with a luteous disk. Wings rather long and narrow, with a slight cupreous and purplish tinge. Fore wings with four limpid spots; first and second elongated, hind one about thrice the size of the fore one; third and fourth shorter, the hind one larger than the fore one. Hind wings with the disk limpid for more than half the length of the base. Length of the body 4 lines; of the wings 10 lines.

Hindostan. In Mr. Saunders' collection.

49. SYNTOMIS CUPREA.

Mas. *Cupreo-nigra; abdomen fasciis læte cupreis; alæ angustæ, anticæ striyis quatuor limpidis, posticæ limpidæ nigro marginatæ.*

Male. Cupreous-black. Antennæ moderately pectinated, about two-thirds of the length of the body. Abdomen with a bright cupreous band on each segment. Wings narrow. Fore wings with two limpid streaks at the base, the hind one longer than the fore one; two shorter limpid discal streaks, the hind one oblique, shorter, and a little in advance of the fore one. Hind wings limpid, with black borders, which are broadest in front. Length of the body 4 lines; of the wings 9 lines.

Hindostan. In Mr. Saunders' collection.

50. SYNTOMIS QUADRICOLOR.

Fœm. *Cyaneo-viridis; abdomen cupreum; alæ angustæ, anticæ nigræ basi virides, posticæ subcinereæ semihyalinæ antice nigræ.*

Female. Bright bluish metallic green. Antennæ wanting. Abdomen cupreous. Wings narrow. Fore wings black, green at the base. Hind wings grayish, subhyaline, black along the fore border. Length of the body 4 lines; of the wings 10 lines.

This species and *S. cuprea* seem to connect *Syntomis* with *Procris.*

Hindostan. In Mr. Saunders' collection.

Genus PSICHOTOE.

Palpi brevissimi, hirsuti, oculos vix attingentes. Antennæ crassiusculæ, cylindricæ, medio subcrassiores, ex articulis moniliformibus distinctissimis compositæ. Abdomen complanatum, dilatatum. Tibiæ posticæ calcaribus minimis. Alæ subnudæ.
Psichotoe, *Boisduval, Mon. Zyg.* 129.

Very nearly allied to *Syntomis*. *Female.*—Body rather slender. Palpi very short. Antennæ rather stout, distinctly serrated, about two-thirds of the length of the body. Abdomen slightly dilated hindward. Legs rather short and slender; hind tibiæ with four very minute spurs. Wings of one colour, semihyaline, very slightly clothed. Fore wings with the first and second inferior veins contiguous at the base; third about twice further from the fourth than from the second.

1. Psichotoe Duvaucelii.

Nigricans, hirsuta, scutello abdominisque fascia flavis; alæ subdiaphanæ.

Psichotoe Duvaucelii, *Boisd. Mon. Zyg.* 129.

Hindostan.

Genus TASEMA.

Mas. Corpus gracillimum. Palpi brevissimi. Antennæ latissime pectinatæ, apices versus subpectinatæ. Abdomen oblanceolatum. Pedes gracillimi; tibiæ posticæ calcaribus nullis. Alæ perangustæ, anticæ opacæ, posticæ semihyalinæ.

Male. Body very slender. Palpi very short. Antennæ about three-fourths of the length of the body, deeply pectinated for three-fourths of the length, hardly pectinated from thence to the tips. Abdomen oblanceolate. Legs very slender; hind tibiæ without spurs. Wings very narrow; fore wings opaque; hind wings semihyaline; structure of the veins much like that of *Syntomis*.

1. Tasema bipars.

Mas. *Nigra; alæ anticæ cupreo-nigræ, posticæ subcinereæ semihyalinæ marginibus obscurioribus.*

Male. Black. Fore wings cupreous-black. Hind wings grayish, subhyaline, with darker borders. Length of the body 3¼ lines; of the wings 7 lines.

Hindostan. In Mr. Saunders' collection.

Genus SERYDA.

Mas. Corpus gracillimum. Proboscis mediocriter longa. Palpi brevissimi. Antennæ mediocriter pectinatæ, corpore vix breviores. Abdomen alas posticas dimidio superans; latera apice fasciculata. Pedes gracillimi; tibiæ posticæ calcaribus minutis apicalibus. Alæ angustæ, ciliatæ.

Male. Allied to *Procris*. Body very slender. Proboscis moderately long. Palpi very short. Antennæ nearly as long as the body, moderately pectinated. Abdomen tufted on each side at the tip, extending for full half its length beyond the hind wings. Legs very slender; hind tibiæ with minute apical spurs. Wings narrow, ciliated. Fore wings with the first and second inferior veins springing from a common petiole; third remote.

1. Seryda cincta.

Mas. *Cyaneo-nigra; alæ anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo; abdominis dimidium basale coccineum.*

Male. Black, tinged with blue Fore wings straight in front, rounded at the tips, extremely oblique along the exterior border. Abdomen crimson for half the length from the tip. Length of the body 2 lines; of the wings 6 lines.

Valley of the Amazon. In Mr. Saunders' collection.

Genus APERLA.

Fœm. Corpus gracillimum. Proboscis mediocriter longa. Palpi porrecti, graciles, sat longi; articulus 3us parvus. Antennæ setaceæ, validæ, subpectinatæ, corpore paullo breviores. Abdomen alas posticas longe superans. Pedes sat validi; tibiæ posticæ calcaribus quatuor longis. Alæ perangustæ, ciliatæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

Allied to *Procris*. *Female.*—Body very slender. Proboscis moderately long. Palpi porrect, straight, slender, moderately long; third joint small. Antennæ setaceous, rather stout, minutely and thickly pectinated, about three-fourths of the length of the body. Abdomen extending for full three-fourths of its length beyond the hind wings. Legs rather stout; hind tibiæ with four long spurs. Wings very narrow, ciliated. Fore wings straight in front, rounded at the tips, very oblique along the exterior border.

1. APERLA TINEIFORMIS.

Fœm. *Cyaneo-nigra; alæ anticæ opacæ, posticæ sublimpidæ nigro marginatæ.*

Female. Bluish black. Fore wings opaque. Hind wings nearly limpid, with black borders. Length of the body 3 lines; of the wings 8 lines.

Parà. In Mr. Saunders' collection.

Genus GLAUCOPIS.

Glaucopis, *Fabr. Illig. Mag.* vi. 289.
Glaucopes, p., *Hübn. Verz. Schmett.* 122.

The *Zygænidæ* (including the *Procrides* and *Glaucopides* of Boisduval), the *Chalcosiidæ*, the *Lithosiidæ* and the *Arctiidæ* form a natural and definite group, which is connected, by means of *Trichosoma* and some other genera, with the other great group, which contains the *Liparidæ*, *Psychidæ*, *Notodontidæ*, *Limacodidæ*, *Drepanulidæ*, *Saturniidæ*, *Bombycidæ*, *Cossidæ* and *Hepialidæ*. The two groups, each of which may be distinguished by a name, mostly differ from each other by the following characters:—

First group. Flight very generally diurnal. Proboscis or maxillæ very generally developed. Palpi generally elongated. Antennæ simple or moderately pectinated. Body slightly or moderately hairy. Wings with bright and frequently with metallic colours or vitreous. Connected with the *Hesperiidæ* through the *Castnii* and the *Cydimonii*, with the *Noctuites* by some genera of *Arctiidæ*, and apparently with the *Pyralites* and the *Tineites* by a few *Lithosiidæ*, and with the following group by means of *Trichosoma* and *Orgyia*, &c.

Second group. Flight very generally nocturnal. Proboscis very generally obsolete. Palpi very frequently short and concealed. Antennæ most often very deeply pectinated in the males. Body, with a few exceptions, very hairy. Wings (excluding the *Saturniidæ*) dull or white, rarely thinly feathered or vitreous. Connected with the *Noctuites* through some genera of *Notodontidæ*, with the *Tineites* by the *Psychidæ*, and closely joined to the *Ægeriidæ* by means of the *Cossidæ*, which family may also connect them with *Depressaria* and other *Micro-Lepidoptera*.

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Genus NORTHIA.

1. Northia cyanecula.

Nov. gen. cyanecula, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.*-1, f. 224.

Glaucopis nigrigemma, p. 141.

Genus TASCIA.

Mas. Corpus sat validum, sublineare. Proboscis thoracis longitudine. Palpi porrecti, graciles, caput non adæquantes; articulus 3us gracilis, elongatus. Antennæ robustæ, breviter pectinatæ, corpore paullo breviores. Abdomen alas posticas dimidio superans. Tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ sat angustæ; anticæ margine exteriore perobliquo venis quatuor superioribus quatuorque inferioribus.

Male. Body moderately stout, nearly linear. Proboscis as long as the thorax. Palpi porrect, slender, not extending so far as the head; third joint slender, elongated. Antennæ stout, pectinated, about three-fourths of the length of the body; branches short. Abdomen very slightly widening from the base nearly to the tip, extending for about half its length beyond the hind wings. Legs moderately stout; hind tibiæ with two small apical spurs. Wings rather narrow. Fore wings rounded at the tips, extremely oblique along the exterior border; discal areolet not divided; four superior veins; second inferior vein as far from the third as from the first; third full six times further from the fourth than from the second.

This genus and *Northia* connect the *Zygænidæ* with the *Chalcosiidæ*.

1. Tascia chrysotelus.

Mas. *Viridis; abdomen fasciis duabus nigris, apice cupreo; alæ anticæ cupreo-nigræ fascia discali limpida; posticæ viridi-nigræ, costa cupreo-nigra, disco basali limpido.*

Male. Metallic green. Proboscis testaceous. Antennæ with black branches. Abdomen with a black band at the base, and another beyond the middle; tip cupreous; under side black with a green stripe on each side. Legs black. Fore wings cupreous-black, with a short divided discal limpid band beyond the middle.

Hind wings greenish black, cupreous-black along the costa; disk towards the base limpid; under side bright bluish green along the costa. Length of the body 4 lines; of the wings 12 lines.

a. Port Natal. From M. Gueinzius' collection.

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Genus PSEUDOMYA.

Palpi extending beyond the head; third joint elongated. Abdomen extending for three-fourths of its length beyond the hind wings. Hind tibiæ with two short apical and two very minute middle spurs. Wings narrow. Fore wings with two superior and four inferior veins. *Male.*—Antennæ moderately pectinated. *Female.*—Antennæ minutely pectinated.

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PSEUDOMYA BIBIA.

h. Parà. From Mr. Stevens' collection.

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PSEUDOMYA STULTA.

Laemocharis stulta, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 258.

Glaucopis dolens, p. 148.

Var. Fore wings blackish from the base to the middle.

Valley of the Amazon.

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PSEUDOMYA HÆMATICA.

Laemocharis Zantes, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 240.

Glaucopis hæmatica, p. 147.

PSEUDOMYA CONSOLATA.

Fœm. *Atra; caput cyaneum; thorax pallide rufus; abdomen maculis transversis lateralibus cyaneis; coxæ et femora subtus cyanea; alæ limpidæ, marginibus angustis apicibusque nigris, areolæ discalis apice nigro limbato.*

Female. Deep black. Head blue. Thorax pale red. Abdomen with transverse blue spots along each side. Coxæ and femora blue beneath. Wings narrow, limpid, with black tips and narrow black borders; veins across the tip of the discal areolet slightly clouded with black. Length of the body 3½ lines; of the wings 10 lines.

Brazil. In Mr. Saunders' collection.

The following species and *P. afflicta* differ slightly in structure from the typical species of the genus.

PSEUDOMYA DESPERATA.

Fœm. *Nigra; antennæ serratæ; abdomen alas posticas plus dimidio superans; tibiæ posticæ calcaribus mediis minimis, apicalibus longiusculis; alæ angustæ, subcinereæ, venis marginibusque nigris.*

Female. Black. Palpi porrect, lanceolate, extending a little beyond the head; third joint acuminated. Antennæ serrated. Abdomen extending for more than half its length beyond the hind wings. Hind tibiæ with four spurs; middle pair small; apical pair rather long. Wings narrow, slightly grayish, with black veins and narrow black borders. Length of the body 3 lines; of the wings 8 lines.

Valley of the Amazon. In Mr. Saunders' collection.

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Genus GYMNELIA.

G. Enagrus, p. 185, *G. acroxantha*, p. 160, and *G. varia*, p. 157, may be added to this genus.

GYMNELIA BIJUNCTA.

Fœm. *Atra; abdomen guttis duabus basalibus albis, maculis quatuor transversis lateralibus viridibus, apice coccineo; alæ limpidæ, marginibus latis nigris, anticæ strigæ una apud areolæ discalis apicem alteraque postica nigris.*

Allied to *G. Lænnus*. *Female.*—Deep black. Pectus with white marks on each side. Abdomen crimson at the tip, with a white dot on each side at the base, and with two transverse green spots on each side. Wings limpid, with broad black borders. Fore wings with a white dot on each at the base, with a black streak

across the tip of the discal areolet, and another extending from near the base of the discal areolet to the interior border, whence it is continued just into the hind wings, but does not correspond to the black band of the latter in *G. Lænnus*. Length of the body 7 lines; of the wings 18 lines.

Var. β. Abdomen and fore wings without white dots, the crimson part of the former occupying a larger space from the tip.

Parà and Valley of the Amazon. In Mr. Saunders' collection.

GYMNELIA SIMPLEX.

Fœm. *Atra; thoracis margo anticus cyaneus; abdomen e guttis cyaneis trivittatum, strigis transversis laterdlibus apicequc coccineis, subtus e maculis albis bivittatum; alæ limpidæ marginibus latis nigris, anticæ striga apud areolæ discalis apicem nigrâ.*

Allied to *G. bijuncta*, but without the hind black streak on the fore wings. *Female.*—Deep black. Thorax blue along the fore border. Abdomen with three rows of blue dots, and with transverse crimson streaks along each side; tip crimson; under side with two lateral stripes of white spots. Coxæ white beneath. Wings limpid, with broad black borders. Fore wings with a black streak across the tip of the discal areolet. Length of the body 6 lines; of the wings 16 lines.

Parà. In Mr. Saunders' collection.

GYMNELIA XANTHOCERA.

Mas. *Atra; antennæ luteæ; thorax cyaneo bivittatus; abdomen lateribus fasciisquè cyaneis; alæ limpidæ, nigro marginatæ, anticæ fascia latiuscula nigra.*

Nearly allied to *P. acroxantha*. *Male.*—Deep black. Antennæ luteous. Thorax with two indistinct blue stripes. Abdomen blue along each side and on the hind borders of the segments; ventral segments, as in *P. acroxantha*, partly concealed by a blue basal white-fringed plate. Coxæ and femora with whitish tomentum beneath. Wings limpid, with black borders. Fore wings with a black band, which is broad and rather less oblique than that of *P. acroxantha*. Length of the body 8 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

Page 154.

Genus ISANTHRENE.

G. ustrina, p. 161, may be added to this genus.

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ISANTHRENE FLAVICORNIS.

a—f. South America.
g. South America. From Mr. Johnson's collection.

ISANTHRENE VESPOIDES.

b. Villa Nova. From Mr. Bates' collection.

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ISANTHRENE PORPHYRIA.

Laemocharis machilis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 245.

a, b. Pará. From Mr. Bates' collection.
c Villa Nova. From Mr. Bates' collection.
d. ——— ?

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ISANTHRENE VESPARIA.

a—d. Villa Nova. From Mr. Bates' collection.

ISANTHRENE ODYNEROIDES.

Fœm. *Lutea, subtus testacea; vertex cyaneus; thorax nigro quadrivittatus; abdomen maculis dorsalibus cyaneis nigro marginatis fasciisque anticis albis; alæ luteo-hyalinæ.*

Female. Luteous, testaceous beneath. Head testaceous; hind vertex blue. Prothorax black, with luteous borders. Thorax with four black stripes. Pectus with a blue spot on each side. Abdomen with a blue black-bordered spot on the hind border of each segment; fore borders of the anterior segments with white bands, which are dilated beneath. Wings luteous-hyaline; veins and ciliæ black. Length of the body 6 lines; of the wings 14 lines.

This species is nearly allied to *I. vesparia*, but may be distinguished by its smaller size, by the hind part of the abdomen, which is not black with blue stripes as in *I. vesparia*, by the posterior tibiæ, which are not striped with black, and by having no black mark on the hind border of the hind wings. In the two last characters it agrees with *I. Porphyria*, but the fore wings have not black tips.

a. Villa Nova. From Mr. Bates' collection.

ISANTHRENE MUNDA.

Fœm. *Pallide lutea; antennæ serratæ, nigræ; thorax vittis tribus fasciaque postica nigris; abdomen vitta interrupta fasciisque nigris; tibiæ posticæ nigro vittatæ; alæ limpidæ, anticæ apice nigræ.*

Female. Pale luteous. Antennæ serrated, black, luteous at the base. Prothorax with black borders. Thorax with three black stripes. Metathorax with a black band and a black stripe. Pectus with two interrupted black stripes. Abdomen with dorsal black bands and with an interrupted dorsal black stripe. Hind tibiæ with a short blackish stripe on the outer side. Wings limpid, with black veins and black ciliæ. Fore wings with black tips. Length of the body 3½ lines; of the wings 10 lines.

This species especially resembles a Hymenopterous insect, and differs somewhat in structure from the three preceding species. There are but two superior veins; the first inferior vein is almost straight, and more remote from the discal fold, and the transverse veinlets of the discal areolet form a much more obtuse angle. It is connected with *Pœcilosoma* by means of *P. gaudens*.

a. Santarem. From Mr. Bates' collection.

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Genus PŒCILOSOMA.

G. xanthogastra, p. 152, may be added to this genus.

PŒCILOSOMA SCINTILLANS.

Laemocharis scintillans, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 244.

Glaucopis flavitarsis, p. 158.

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PŒCILOSOMA PHERES.

g. Villa Nova. From Mr. Bates' collection.

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PŒCILOSOMA MULTICINCTA.

b. St. Domingo. From M. Sallé's collection.
c. St. Domingo. From Mr. Stevens' collection.

PŒCILOSOMA SPERANS.

Fœm. *Atra; caput supra cyaneum; antennæ apices versus albæ; thorax vittis quatuor cupreis unaque cyanea; abdomen cyaneo trivittatum; coxæ anticæ subtus roseæ; alæ limpidæ, marginibus latis apicibusque nigris, anticæ macula discali nigra.*

Female. Deep black. Head pale blue above. Antennæ white above towards the tips. Thorax pale blue on each side in front, with an interrupted pale blue stripe, and with four interrupted and less distinct cupreous stripes. Abdomen with three pale blue stripes. Fore coxæ rosy red beneath. Wings limpid, with black veins and rather broad black borders, which are dilated at the tips. Fore wings with a large black spot at the tip of the discal areolet, which character especially distinguishes this species from *P. Pheres*. Length of the body 5½ lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

PŒCILOSOMA INSPERATA.

Fœm. *Atra; caput antice cyaneum, apud oculos album; antennæ apices versus albæ; thorax maculis duabus anticis unaque postica cyaneo-viridibus; abdomen viridi trivittatum, coxæ anticæ subtus roseæ; alæ nigricantes, anticæ discis subcinereis macula nigra, posticæ discis limpidis.*

Female. Deep black. Head deep blue above. Antennæ white above towards the tips. Thorax with a deep blue spot on each side in front, and another on the scutellum. Abdomen with three pale blue stripes, the middle stripe macular. Fore coxæ rosy red beneath. Wings black, with grayish hyaline disks, which blend with the black part in the fore wings; the latter have a large black

spot at the tip of the discal areolet. Length of the body 5½ lines; of the wings 14 lines.

This species is very nearly allied to *P. sperans*, and may prove to be a mere variety.

Parà. In Mr. Saunders' collection.

PŒCILOSOMA GAUDENS.

Mas. *Lutea; vertex niger, cyaneo bimaculatus; antennæ nigro-cyaneæ, ramis fulvis; thorax fasciis duabus anticis, vittis tribus scutelloque cyaneis nigro marginatis; abdomen vittis tribus macularibus cyaneis fasciisque nigris; alæ limpidæ, basi luteæ, marginibus apicibus strigaque transversa discali nigris.*

Male. Luteous, paler beneath. Vertex black, with two blue spots. Antennæ bluish black, with tawny branches. Thorax with two bands in front, three stripes and the scutellum blue, with black borders. Abdomen above with a black band on the hind border of each segment, and with three rows of blue spots. Wings limpid, luteous at the base; veins, border, tips and tip of the discal areolet black. Length of the body 4½ lines; of the wings 11 lines.

Parà. In Mr. Saunders' collection.

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Genus LAGARIA.

Laemocharis, p., *Boisd.; Herr.-Schæff.*

LAGARIA VULNERATA.

Laemocharis vulnerata, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 238.

Glaucopis erytherarchos, p. 164.

Var. Fœm. *Atra; antennæ apice supra albæ; thorax guttis duabus anticis albis, lateribus apud alas roseis; abdomen e guttis albis trivittatum, lateribus anticis roseis; femora tibiæque apice alba; alæ limpidæ, nigro marginatæ, anticæ apicibus strigaque discali nigris.*

Var. Female. Deep black. Antennæ white above towards the tips. Thorax with a black dot on each side in front, rosy red about the base of the hind wings. Pectus with a white spot on each side. Abdomen rosy red on each side towards the base, with three

rows of white dots, and with a larger triangular white dot at the base; under side with two rows of white dots. Femora and tibiæ with white tips. Wings limpid, with black veins and borders; hind wings and interior border of the fore wings rosy red at the base; fore wings with black tips and a black streak across the tip of the discal areolet. Length of the body 8 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

Lagaria Hanga.

Mas et fœm. *Atra; caput albo biguttatum; antennæ apice supra albæ; thorax guttis quatuor anticis albis, lateribus apud alas luteis; abdomen e guttis albis trivittatum, lateribus anticis maculisque quatuor anticis luteis; femora tibiæque apice alba; alæ limpidæ, basi luteæ, marginibus nigris, anticæ apice nigræ.*

Laemocharis Hanga, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 246.

Male and female. Deep black. Head with a white dot on each side behind. Antennæ white above towards the tips. Thorax with four white dots in front, luteous about the base of the wings. Abdomen luteous on each side at the base, with three rows of white dots; the middle row obsolete towards the base, where there are two luteous spots on each side. Femora and tibiæ with white tips. Wings limpid, luteous at the base; veins and borders black. Fore wings with black tips. Length of the body 7½ lines; of the wings 18 lines.

a. Spirito Sancto, Brazil. From Mr. Stevens' collection.

Lagaria acuminata.

Mas, ? *Atra, lata; caput albo varium; thorax maculis duabus anticis vittisque quatuor cyaneis; abdomen cyaneo alboque maculatum ?; coxæ anticæ subtus albæ; alæ limpidæ, basi nigro-cyaneæ, marginibus nigris.*

Male ? Deep black, broad. Head white above and on each side beneath. Antennæ rather long, slightly pectinated; serrated at the base and towards the tips. Thorax with a white spot on each side in front, and with four blue stripes. Abdomen (mutilated) with blue and white spots? Fore coxæ white beneath. Wings limpid, black, and marked with blue at the base, and with black veins and borders, which are dilated on the hind side of the hind wings. Length of the body 8 ? lines; of the wings 17 lines.

This species differs somewhat in structure from the two preceding; the fore wings are more acuminated at the tips, and more triangular. It approaches *Eunomia* in structure.

Brazil. In Mr. Saunders' collection.

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Genus LAEMOCHARIS.

Laemocharis, p., *Boisd.; Herr.-Schæff.*
Erruca, p. 165.

Laemocharis Deyrolii.

Laemocharis Deyrolii, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 247, 251, a.
Laemocharis Norma? *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 251, b.

Laemocharis Aecyra.

Laemocharis Aecyra, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 250.
Glaucopis sortita, p. 184.

Laemocharis Pertyi.

Atra; caput albo biguttatum; abdomen guttis quatuor basalibus luteis vittisque duabus lateralibus interruptis albis; alæ limpidæ, nigro tenuissime marginatæ.

Laemocharis Pertyi, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 249.

Georgia.

Laemocharis contracta.

Mas. *Atra; caput cyaneo varium; antennæ ramis fulvis; abdomen basim versus contractum, maculis anterioribus et posterioribus cyaneis; tibiæ subtus tarsique obscure fulva; coxæ anticæ subtus cyaneæ; alæ luridæ, anticæ apice nigræ.*

Male. Deep black. Head blue above, and with a blue spot in front. Antennæ with tawny branches. Abdomen with blue spots on each side towards the base and towards the tip; basal half contracted. Tibiæ beneath and tarsi dull tawny; fore coxæ blue

beneath. Wings lurid hyaline, much narrower than those of *L. Deyrollii*. Fore wings with black tips; costa, veins and interior border partly luteous. Length of the body 6 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

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Genus ILIPA.

G. varipes, p. 175; *G. picta*, p. 176, and *G. postica*, p. 178, may be added to this genus.

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Ilipa Tengyra.

b. Parà. From Mr. Stevens' collection.
c. Parà. From Mr. Bates' collection.

Ilipa Tenthredoides.

Mas. *Lutea; caput nigrum, cyaneo varium; thorax fascia antica cyanea nigro marginata strigaque transversa inter alas nigra; abdomen fasciis interruptis cyaneis, apice supra nigro; pedes ferruginei, tibiis luteis; alæ limpidæ, nigro late marginatæ, basim versus luteæ, anticæ fascia apud areolæ discalis apicem nigra.*

Male. Luteous. Head blue and black above. Palpi above and antennæ black. Thorax with a short blue black-bordered band in front, and with a transverse black mark between the wings, where there is a tuft of black hairs on each side. Abdomen above at the tip black, with interrupted blue bands. Legs ferruginous; tibiæ luteous. Wings limpid, with rather broad black borders and tips, luteous towards the base, and with luteous veins. Fore wings black at the base, and with a black band across the tip of the discal areolet. Length of the body 3¼ lines; of the wings 10 lines.

Valley of the Amazon. In Mr. Saunders' collection.

ILIPA SCITA.

Mas. *Lutea ; antennæ nigræ ; thorax nigro quadrivittatus ; scutellum cyaneo nigroque varium ; abdominis segmenta cyaneo fasciata ; tibiæ tarsique postici nigro striqata ; alæ luteo limpidæ, apicibus marginibusque nigris, anticæ striga transversa discali nigra.*

Allied to *Isanthrene*, and especially to *T. Odyneroïdes*. *Male.* —Luteous. Antennæ black. Prothorax with black borders. Thorax with four incomplete black stripes. Scutellum partly blue and black. Abdomen with a broad blue band on the hind border of each segment. Legs slender, pale luteous; hind tibiæ and hind tarsi streaked above with black. Wings luteous-hyaline; tips black; border partly black; veins mostly luteous; end of the discal areolet clouded with black, and forming an almost right angle. Length of the body 6 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

Page 168.

Genus COSMOSOMA.

Laemocharis, p., *Boisd.*; *Herr.-Schæff.*

G. subflamma, p. 159, and *G. chrysis*, p. 162, may be added to this genus.

COSMOSOMA OMPHALE.

f, g. Jamaica. From Mr. Gosse's collection.

COSMOSOMA TEUTHRAS.

f. Santarem. From Mr. Bates' collection.

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COSMOSOMA TYRRHENE.

j—m. St. Domingo. From Mr. Tweedie's collection.
n. Santarem. From Mr. Bates' collection.

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COSMOSOMA TELEPHUS.

Laemocharis Telephus, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 242.

COSMOSOMA PANOPES.

Laemocharis Panopes, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 243.

Glaucopis subflamma, p. 159.

COSMOSOMA ADMOTUM.

Ochraceum ; caput supra cyaneum ; antennæ nigræ, apices versus supra albæ ; abdomen nigrum, e guttis cyaneis bivittatum ; alæ limpidæ, apicibus marginibusque nigris ; anticæ striga discali nigra.

Laemocharis admota, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 241.

C. Telephus, var.?

Bahia.

COSMOSOMA BURA.

Laemocharis Bura, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 239.

Glaucopis discifera, p. 178.

COSMOSOMA ANNEXUM.

Mas. *Nigrum ; vertex thoracisque margo anticus cyanei ; abdomen vittis duabus macularibus cyaneis ; alæ limpidæ, apicibus marginibusque nigris, his ex parte ochraceis, anticæ striga discali nigra, plaga postica ochracea.*

Laemocharis annexa, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 257.

Rio Janeiro.

COSMOSOMA CONFINE.

Nigrum; thorax ochraceus, nigro vittatus; abdomen vittis duabus interruptis cyaneis; alæ limpidæ, apicibus marginibusque latis nigris, anticæ basi ochraceæ, fascia postice dilatata nigra.

Laemocharis confinis, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 255.

Rio Janeiro.

COSMOSOMA CROCATUM.

Nigrum; thorax maculis duabus lateralibus luteis; abdomen strigis duabus basalibus albis maculisque quatuor mediis lateralibus luteis; alæ limpidæ, apicibus marginibusque nigris, anticæ striga discali tenuissima nigra.

Laemocharis crocata, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 248.

Rio Janeiro.

COSMOSOMA MARGINATUM.

Fœm. *Rufum; caput nigrum, antice cyaneum; antennæ nigræ, apices versus albæ; thoracis discus niger; abdomen nigrum, vittis duabus rufis maculisque dorsalibus cyaneis; pedes nigri, femoribus tibiisque ex parte rufis; alæ limpidæ, apicibus marginibusque nigris, anticæ macula discali nigra.*

Female. Red. Head black, blue in front. Proboscis, palpi and antennæ black, the latter white above towards the tips. Disk of the thorax black. Abdomen black, with two red stripes, and with a middle row of blue spots. Legs black; coxæ and femora partly red. Wings limpid, black for one-fourth of the length from the tips, and with broad black borders; veins black. Fore wings with a black spot at the tip of the discal areolet. Length of the body 5 lines; of the wings 11 lines.

Valley of the Amazon. In Mr. Saunders' collection.

Page 174.

Genus AGEROCHA.

Agerocha, *Geyer, Zeitr. Samml. Exot. Schmett.* Marissa, p. 174.

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CHROSTOSOMA EVADNES.

Var. Luteous. Head with a black band between the eyes, white in front. Wings limpid, with narrow black borders; veins black. Fore wings black for one-fourth of the length from the tips; a black mark at the tip of the discal areolet.

b. Parà: From Mr. Bates' collection.

Genus EURATA.

Eurata, *Boisd.*; *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1.

G. Teda, p. 177, *G. dorsalis*, p. 177, and *G. ornatula*, p. 163, may be added to this genus.

EURATA PICTA.

Eurata picta, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 52.

Eurota pictula, p. 180.

EURATA SERICARIA.

Glaucopis sericaria, *Perty, Anim. Artic. Bras.*

Eurata sericaria, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 229.

EURATA SELVA.

Atra; thorax fasciis duabus una antica alteraque postica coccineis flavo marginatis; abdomen flavo-coccineum, plaga antica striga postica fasciisque nigris; alæ limpidæ, apicibus marginibusque latis nigris, anticæ fascia lata nigra.

Eurata Selva, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 227.

Monte Video.

EURATA HELENA.

Nigra; thorax fascia antica lata flava; abdomen flavum, maculis transversis nigris; alæ basi flavæ, anticæ limpidæ fasciis duabus apicibusque nigris, posticæ nigræ, fascia incompleta basique limpidis.

Eurata Helena, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 230.

Brazil.

EURATA DORSALIS.

Glaucopis dorsalis, p. 177.

● Santarem. From Mr. Bates' collection.

EURATA SELECTA.

Fœm. *Cyaneo-nigra; antennæ supra apices versus albæ; thorax luteo marginatus; abdomen coccineum, vitta dorsali cyaneo-nigra, maculis connexis trigonis fascia basali guttisque ventralibus lateralibus albis; alæ limpidæ, marginibus apicibusque et anticarum fasciis duabus cyaneo-nigris.*

Laemocharis selecta, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 256.

a. Brazil. From Mr. Stevens' collection.

EURATA TRANSIENS.

Fœm. *Nigra; antennæ subpectinatæ; thoracis abdominisque latera lutea; alæ nigræ, angustæ, basi luteæ, discis basim versus limpidis, anticæ fascia exteriore limpida postice dilatata.*

Female. Black. Antennæ minutely pectinated. Sides of the thorax and of the abdomen luteous. Wings black, narrow; veins partly luteous; disks almost limpid towards the base, which is luteous. Fore wings with an exterior limpid band, which is dilated hindward. Length of the body 3½ lines; of the wings 10 lines.

Brazil. In Mr. Saunders' collection.

EURATA TRANSACTA.

Fœm. *Fusco-nigra, subtus ferrugineo-fusca, lateribus luteis; abdomen apice cyaneum; alæ fuscæ, anticæ fascia, posticæ striga, limpidis.*

Female. Much like *E. transiens* in structure, but the third joint of the palpi is more slender and acuminated. Brownish black, ferruginous-brown beneath. Sides of the head, of the thorax and of the abdomen luteous. Abdomen blue above at the tip. Wings

brown, opaque. Fore wings at two-thirds of the length with an irregular limpid band, which does not extend to the borders. Hind wings with a limpid discal stripe. Length of the body 3½ lines; of the wings 9 lines. It is allied to some of the species with wholly opaque wings, perhaps also to *Syntomis* (which chiefly represents the preceding American forms), and is one of the numerous genera into which this family may still be divided.

China. In Mr. Saunders' collection.

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HYDA XANTHORHINA.

Eurata xanthorhina, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 226.

Glaucopis basilutea, p. 182.

b. Santarem. From Mr. Bates' collection.

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Genus EUNOMIA.

G. stipata, p. 184, *G. leucaspis*, p. 185, and the species comprised in the groups *Æthria*, p. 188, and *Dinia*, p. 189, may be added provisionally to this genus. It much resembles *Laemocharis* and *Lagaria* in the structure of its wings and in some other characters.

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EUNOMIA HÆMORRHOIDALIS.

The band on the fore wing is occasionally complete, and in a variety of this species the black border is much narrower than usual, and the notch in the black part at the tips of the hind wings extends almost to the fore border. The male has no red band at the base of the abdomen, the palpi are not white beneath, the black borders of the wings are rather narrower than in the female, and are hardly widened at the tips of the hind wings. The antennæ are rather more tufted above than in the female.

EUNOMIA AUGE.

h. Mexico. From Mr. Argent's collection.

i. Rio Janeiro. Presented by Capt. Stanley. From Mr. Macgillivray's collection.

j. Brazil. From Mr. Stevens' collection.
k. Venezuela. From M. Becker's collection.
l—*n*. Honduras. From Mr. Miller's collection.

EUNOMIA SORDIDA.

Mas. *Nigra; antennæ supra apices versus albæ; abdomen apice coccineum; alæ angustæ, subcinereo hyalinæ, apicibus marginibusque latis nigris, anticæ macula discali nigra.*

Male. Dull black. Antennæ moderately pectinated, white above near the tips. Abdomen with a crimson tuft at the tip. Wings narrow, limpid, with a very slight grayish tinge, and with black tips and broad black borders. Fore wings with a black spot at the tip of the discal areolet. Length of the body 4½ lines; of the wings 10 lines.

a. Santarem. From Mr. Bates' collection.

EUNOMIA VACILLANS.

Mas. *Atra; caput supra cyaneum; thorax margine antico vittisque duabus cyaneis; abdomen e maculis cyaneis trivittatum, apice coccineum, subtus basi album; coxæ anticæ tarsique posticæ subtus alba; alæ limpidæ, marginibus apicibusque nigris, anticæ striga discali.*

This species and *E. sordida* may be distinguished from all the other *Eunomiæ* by their narrow wings. *Male.*—Deep black. Head blue above. Thorax blue in front, and with two blue stripes. Abdomen with three rows of pale blue spots; tip crimson; under side white at the base. Fore coxæ and hind tarsi white beneath. Wings limpid, narrow, with black tips, borders and veins. Fore wings with the usual black streak at the tip of the discal areolet. Length of the body 6 lines; of the wings 12 lines.

Valley of the Amazon. In Mr. Saunders' collection.

EUNOMIA ABDOMINALIS.

Mas. *Nigra, subtus lutea; caput antice luteo fasciatum; thorax maculis sex anticis vittisque tribus luteis; abdomen vitta basali lutea maculari, lateribus mediis coccineis, apice atro fasciculato; pedes lutei, tibiis tarsisque posterioribus nigro vittatis; alæ limpidæ nigro submarginatæ, anticæ vix luridæ, posticæ apud marginem interiorem nigricantes.*

This species is especially allied to *Laemocharis* and to *Lagarea*. *Male.*—Black, luteous beneath. Head luteous about the eyes, and with a luteous band in front. Palpi luteous beneath. Antennæ moderately pectinated, not tufted above. Thorax with six luteous spots in front, and with three luteous stripes. Abdomen with a luteous partly macular stripe, which extends to about half the length; middle part crimson on each side; tip deep black and thickly tufted. Legs luteous; posterior tibiæ and tarsi striped above with black. Wings limpid, rather broad, with black veins and very narrow black borders. Fore wings with a very slight lurid tinge towards the tips; veinlets at the tip of the discal areolet forming a nearly right angle. Hind wings blackish along the interior border. Length of the body 9 lines; of the wings 18 lines.

Valley of the Amazon. In Mr. Saunders' collection.

EUNOMIA SEPARATA.

Mas. *Nigra; caput testaceo varium, subtus roseum; thorax guttis duabus vittisque duabus luteis; abdomen vittis duabus subinterruptis discoque ventrali luteis, apice nigro fasciculatum; pedes cyaneo-nigri, coxis tarsisque subtus testaceis; alæ limpidæ apicibus marginibusque angustis nigris, anticæ latiusculæ, striga discali minima.*

An aberrant species of *Eunomia*. *Male.*—Black. Head pale testaceous in front and about the eyes, rosy red beneath. Antennæ not tufted. Thorax with a luteous dot on each side in front, and with two luteous diverging stripes. Abdomen with a luteous slightly interrupted stripe along each side; disk beneath luteous, paler towards the base; a tuft of black hairs at the tip. Legs bluish black; coxæ and tarsi testaceous beneath. Wings limpid, with black tips and veins and narrow black borders. Fore wings rather broad; tip of the discal areolet hardly clouded. Hind wings whitish along the costa, and with a luteous fringe along the exterior border. Length of the body 5 lines; of the wings 11 lines.

Brazil. In Mr. Saunders' collection.

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Genus PSEUDOSPHEX.

P. Zethus and *P. Polistes* will form two distinct genera; *P. Zethus* may be considered as the type of *Pseudosphex*; and the generic name *Myrmecopsis* may be restored to *P. Polistes*, *P. tarsalis* and *P. semihyalina*.

PSEUDOSPHEX CONSOBRINA.

Mas. *Flava; vertex nigro fasciatus; palpi nigro guttati; antennæ apice supra albo; thorax fasciis duabus anticis vittisque quinque nigris; abdomen testaceum, basi flavum ferrugineo bimaculatum, apice ferrugineum; pedes testacei; alæ limpidæ.*

Male. Yellow. Head with a slender black band on the vertex. Palpi with a black dot at each base and another near each tip. Antennæ black, white above towards the tips. Thorax with two black bands in front, and with five black stripes. Abdomen testaceous in the middle, ferruginous towards the tip, and with two ferruginous triangular spots at the base. Legs testaceous. Wings limpid, with black veins. Length of the body 4½ lines; of the wings 10 lines.

This species may be distinguished from *P. Zethus* by having no red spot between the eyes; by the abdomen without bands; and by the limpid wings, whose tips are not black.

Valley of the Amazon. In Mr. Saunders' collection.

PSEUDOSPHEX COGNATA.

Mas. *Flava; vertex niger; antennæ fulvæ; thorax fascia antica vittisque quinque nigris; abdomen supra luteum, segmentorum marginibus posticis albidis nigro fasciatis; pedes testacei; alæ subluridæ, anticæ apice nigræ.*

Male. Yellow. Vertex black. Antennæ tawny. Thorax with a black band in front, and with five black stripes, the middle one broad and irregular. Abdomen luteous above, with a whitish tinge, and a black band on the hind border of each segment. Legs testaceous. Wings with a slight lurid tinge; tips of the fore wings and veins black. Length of the body 4½ lines; of the wings 11 lines.

The characteristics of this species are its tawny antennæ, its want of the abdominal dorsal stripe which distinguishes *P. Zethus*, the less black at the tips of the fore wings, the greater space between the third and fourth inferior veins, and the more acutely angular tip of the discal areolet.

Valley of the Amazon. In Mr. Saunders' collection.

MYRMECOPSIS ICHNEUMONEA.

Mas? *Cyaneo-nigra, gracilis; abdomen fusiforme; alæ subcinereæ, angustæ, anticæ apud costam fuscescentes.*

Nov. Gen. ichneumonea, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 225.

Much more slender than *M. tarsalis*.

Brazil.

MYRMECOPSIS OPACA.

Fœm. *Nigro-cyanea; caput bifasciculatum; abdomen subpetiolatum, oblanceolatum; pedes ferrugineo tomentosi; alæ longæ, angustæ, lanceolatæ, viridi purpureoque variæ.*

Female. Blackish blue. Proboscis, palpi and antennæ black. Head with a thick tuft of hairs on each side beneath, as in *M. semihyalina*. Abdomen oblanceolate, subpetiolated, nearly twice the length of the thorax. Legs with ferruginous stripes. Wings long, narrow, lanceolate, dark blue, mingled with green and purple. Length of the body 8—9 lines; of the wings 18—20 lines.

Parà, Valley of the Amazon. In Mr. Saunders' collection.

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HEREA RUFICEPS.

d. Santarem. From Mr. Bates' collection.

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POMPOSTOLA HYPARCHUS.

d. Ashanti. From the Wesleyan Missionary Society's collection.

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Genus TRICHELA.

Trichela, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1. Enope, p. 208.

TRICHELA TOLUMNENSIS.

Trichela Tolumnensis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 13, f. 5, 3.

Santa Fé de Bogotà.

Genus EUPYRA.

Eupyra, *Bosid. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1. Chrysocale, p. 208.

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1. EUPYRA IGNITA.

Eupyra ignita, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, pl. 13, f. 55.

Venezuela.

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2. EUPYRA PLEBEIA.

Eupyra plebeia, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, pl. 13, f. 56.

Euchromia opulenta, p. 210.

Caraccas.

3. EUPYRA REGALIS.

Aureo-viridis; thorax cupreus, albo apud alas anticas biguttatus; alæ margine strigaque discali nigris, anticæ guttis quatuor, posticæ duabus discalibus limpidis.

Eupyra regalis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, pl. 13, f. 57.

Quito.

4. EUPYRA IMPERIALIS.

Cyanea; thorax guttis duabus anticis albis; alæ anticæ auratovirides plaga margineque nigris, macula magna discali limpida; posticæ nigræ macula parva limpida, basi cyaneæ.

Eupyra imperialis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, pl. 13, f. 54.

Venezuela.

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EMPYREUMA LICHAS.

c—e. St. Domingo. From Mr. Tweedie's collection.

EMPYREUMA PUGIONE.

c—e. Jamaica. From Mr. Gosse's collection.

f. ——— ? From Capt. Parry's collection.

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1. BELEMNIA ERYX.

West Indies.

g. Tapayos. From Mr. Bates' collection.

Var. Fœm. *Cupreu; thoracis maculæ anticæ posticæque abdominisque maculæ laterales cyaneæ; abdomen subtus coccineum; pedes cyaneo vittati; alæ anticæ nigræ, basi aureo-virides, macula transversa exteriore testaceo-hyalina; posticæ splendide cyaneæ, marginibus latis nigris.*

Female. Cupreous. Head above partly black. Proboscis, palpi and antennæ black. Thorax with blue marks in front and behind. Abdomen with lateral blue spots, which decrease in size from the base to the tip; under side crimson. Legs striped with blue. Fore wings black, gilded green towards the base, with a testaceous-hyaline transverse spot beyond the middle. Hind wings brilliant blue, with broad black borders. Length of the body 9 lines; of the wings 20 lines.

Valley of the Amazon. In Mr. Saunders' collection.

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Genus CHARIDEA.

Charidea, *Dalm.; Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1. Automolis, p. 213.

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CHARIDEA FULGIDA.

Charidea fulgida, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 235.

Euchromia fastuosa, p. 215.

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CHARIDEA JUCUNDA.

f. Spirito Sancto, Brazil. From Mr. Stevens' collection.

CHARIDEA SPLENDIDA.

Cyanea, aureo-viridi varia; alæ nigræ; anticæ basi cyaneæ, fascia obliqua media maculaque exteriore rufis; postica triente basali cyanea, macula postica rufa.

Charidea splendida, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 232.

Venezuela.

CHARIDEA FULGENS.

Aureo-viridis; abdomen cyaneum, aureo-viridi fasciatum; alæ anticæ nigræ, basi aureo-virides, maculis duabus rufis, una basali, altera exteriore; posticæ cyaneæ, rufo marginatæ.

Charidea fulgens, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Sér.* 1, f. 234.

Venezuela.

CHARIDEA MICANS.

Aureo-viridis; abdomen cyaneum, aureo-viridi fasciatum; alæ anticæ nigræ, basi aureo-virides, vitta discali interrupta subarcuata lutea; posticæ cyaneæ, rufo marginatæ.

Charidea micans, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 233.

C. fulgens, *var.* ?

Venezuela.

a. New Grenada.

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HISTIOCA BELLATRIX.

f. New Grenada. From Mr. Stevens' collection.

Var. Thorax without pale spots in front. Abdomen with no pale band. Fore wings with but with one red basal streak. Hind wings with no red spot at the base; the exterior band narrow.

g. Villa Nova. From Mr. Bates' collection.

HISTIOCA APICALIS.

Charidea apicalis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 236.

Euchromia albiplaga, p. 218.

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PHALANNA POLYMENA.

m. Celebes. From Madame Ida Pfeiffer's collection.

Page 222.

HIRA MADAGASCARIENSIS.

e. ——— ?

HIRA FOLLETII.

Nigra, cyaneo varia; thorax maculis duabus magnis lateralibus ochraceis; abdomen basi luteum, fasciis duabus anticis posterioribusque tribus cyaneis, una media rufa; alæ anticæ disco basali fasciaque exteriore pallide flavis; posticæ maculis duabus magnis subtrigonis pallide flavis.

Black. Head blue above. Thorax mostly blue, with a large orange spot on each side. Abdomen luteous at the base, with two succeeding blue bands; these are followed by a red band, and the

latter by three blue bands. Fore wings with a blue dot beyond the middle, pale yellow in the disk for more than one-third of the length from the base, and with a short exterior pale yellow band. Hind wings with two large nearly triangular pale yellow spots, one at the base, the other beyond the middle. Length of the body 8—9 lines; of the wings 23—26 lines.

This species chiefly differs from *H. Iporchius* by the abdomen, without a white band, and by the paler colour on the wings.

a—c. Port Natal. From M. Gueinzius' collection.
d—f. Port Natal. From Dr. Krauss' collection.
g. Port Natal. From M. Becker's collection.
h. Cape. From M. Dregé's collection.

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HIPPOLA MEONES.

Charidea Meonioides, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 237.

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HIPPOLA IRUS.

d. Celebes. From Madame Ida Pfeiffer's collection.

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HISTIOCA CEPHEUS.

Euchromia Cepheus, p. 229.

This species should follow *H. bellatrix.*

Var. *Abdomen fasciis nullis pallidis; alæ anticæ pallide fusco non vittatæ, fascia exteriore sordida; posticæ macula basali nulla, fascia exteriore latissima.*

Var. Abdomen without pale bands. Fore wings without the pale brown streaks, the marks towards the base quite obsolete above, and the exterior band dingy and attenuated hindward. Hind wings without the red spot at the base, and with the red band very broad.

Valley of the Amazon. In Mr. Saunders' collection.

ENDERA MELANTHUS.

a. Guatimala. From M. Deby's collection.
b. Venezuela. From M. Becker's collection.
c. Honduras. From Mr. Dyson's collection.

Var. Abdomen with white bands.

d. Nicaragua. From M. De Latre's collection.

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TIPULODES? APICALIS.

Fœm. *Cyaneo-fusca; antennæ nigræ, subserratæ, apice albæ; abdomen alas posticas dimidio superans; alæ sat angustæ, anticæ fascia lata abbreviata semihyalina pallide flava.*

Female. Dark brown, tinged with blue. Antennæ black, minutely serrated, rather more than half the length of the body; tips white. Abdomen extending for full half its length beyond the hind wings. Hind tibiæ with four rather short spurs. Wings rather narrow. Fore wings with a broad very pale yellow semihyaline band, which does not extend to the borders. Length of the body 6 lines; of the wings 16 lines.

a. ———? From the Zoological Society's collection.

TIPULODES? THORACICA.

Aureo-viridis; thorax rufo-fulvus; tarsi subtus ferruginei; alæ nigræ, cyaneo-viridi purpureoque variæ, posticæ basim versus sublimpidæ.

Gilded green. Proboscis tawny. Palpi and antennæ black. Thorax and pectus reddish tawny. Tarsi ferruginous beneath. Wings black, with blue, green or purple reflections. Hind wings almost limpid towards the base, except along the costa. Length of the body 5 lines; of the wings 14 lines.

a. ———? Presented by E. Doubleday, Esq.
b. Africa? From Mr. Milne's collection.

TIPULODES? INCERTA.

Fœm. *Pallide luteu; caput, abdomen et pedes fuscescentia; antennæ nigræ, subpectinatæ; alæ fuscæ, longæ, angustæ, basi luteæ.*

Female. Pale luteous. Head, abdomen and legs brownish. Antennæ black, minutely pectinated. Wings brown, long and narrow. Fore wings pale luteous at the base. Length of the body 4 lines; of the wings 12 lines.

a. ——— ? From Mr. Milne's collection.

CALONOTA PHLEGMON.

Laemocharis nexa, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 254.

d. Santarem. From Mr. Bates' collection.
e. Villa Nova. From Mr. Bates' collection.

CALONOTA HELYMUS.

Laemocharis sericea, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 253.

a. South America. Presented by C. Darwin, Esq.

CALONOTA PERSPICUA.

Fœm. *Nigra; caput, thorax et coxæ albo maculata; abdomen aureo-viride, fasciis duabus lateralibus flavescentibus; alæ disco basali fasciaque abbreviata exteriore limpidis.*

Female. Black. Head with a white spot in front, and with two white dots behind. Thorax with two dorsal and with four lateral white dots, one at the base of each wing. Abdomen slightly gilded dark green, with a broad pale yellowish stripe along each side above and beneath. Coxæ with white spots. Wings with the disk towards the base, and with an exterior abbreviated band, limpid, intersected by the black veins. Length of the body 8 lines; of the wings 20 lines.

Parà. In Mr. Saunders' collection.

Calonota interrupta.

Mas. *Viridi-nigra; thorax albo aut viridi varius; abdomen fasciis interruptis aureo-viridibus, subtus e maculis albis bivittatum; pedes picei; alæ nigræ, angustæ, anticæ maculis quatuor elongatis limpidis; posticæ disco basali maculaque exteriore limpidis.*

Male. Black, with a metallic green tinge. Thorax with white or green marginal dots in front, and with two dorsal streaks of the same hue. Abdomen with a white dot at the base, and with interrupted gilded green bands; under side with two lateral rows of white spots, which decrease in size hindward. Legs piceous. Wings black, narrow. Fore wings with four elongated limpid spots, the hind one of the first pair nearer the base of the wing than the fore one, which, like the exterior pair is intersected by the black veins. Hind wings with the disk limpid towards the base, and with an exterior intersected limpid spot. Length of the body 7¼ lines; of the wings 18 lines.

Mexico. In Mr. Saunders' collection.

Calonota? niveifascia.

Fœm. *Atra; antennæ subpectinatæ; abdomen cyaneo-nigrum, fascia basali nivea, subtus albo bimaculatum; coxæ albo guttatæ; alæ anticæ fasciis tribus, posticæ duabus limpidis.*

Apparently allied to the genus *Syntomis*.

Female. Deep black. Antennæ slightly pectinated. Abdomen bluish black, with a snow-white band at the base above, and with two transverse lateral white spots beyond the middle beneath. Coxæ with white dots. Wings bluish black. Fore wings with a white dot on each side at the base, and with three abbreviated limpid bands; second band interrupted; third intersected by the black veins. Hind wings with two white bands, which correspond to the first and second of the fore wings. Length of the body 5 lines; of the wings 15 lines.

a. ——— ? From the collection of the Zoological Society.

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Genus PAMPA.

This genus may be subdivided or formed into two groups, one represented by *P. cryptoleuca*, *mystica* and *flavifascia*; the other by *P. imperialis*, *P. acuminata* and *P. fusiformis*.

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PAMPA IMPERIALIS.

b. Tapayos, Brazil. From Mr. Bates' collection.

PAMPA ACUMINATA.

Fœm. *Fusca; antennæ nigræ, basi luteæ, vix pectinatæ; abdominis latera apicem versus pectusque lutea; alæ mediocriter latæ, ciliis pallidis, anticæ acuminatæ.*

Female. Brown. Palpi and antennæ black, the latter luteous at the base, hardly pectinated. Proboscis tawny. Pectus luteous. Abdomen luteous on each side towards the tip. Fore coxæ luteous beneath. Wings moderately broad; ciliæ pale. Fore wings acuminated. Length of the body 5 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

PAMPA FUSIFORMIS.

Fœm. *Viridi-fusca, fusiformis; caput coccineo biguttatum; thorax guttis duabus coccineis tribusque albis; abdomen subtus e maculis albis bivittatum; alæ angustæ, anticæ subacuminatæ, posticæ limpidæ marginibus latiusculis nigricantibus.*

Female. Dark brown, fusiform, slightly tinged with green. Head with two crimson dots behind. Thorax with a crimson dot on each side in front, and two white dorsal dots; a white dot behind the scutellum. Abdomen beneath with two white macular lateral bands. Fore coxæ white beneath. Hind tibiæ with four rather long spurs. Wings narrow. Fore wings slightly acuminated. Hind wings limpid, with rather broad blackish borders. Length of the body 6 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

PAMPA POSTICA.

Mas. *Nigricans; antennæ medio subincrassatæ; pedes sat validi; tibiæ posticæ calcaribus quatuor longiusculis; alæ perangustæ, anticæ macula postica subapicali sublimpida, posticæ subcinereæ semihyalinæ.*

Male. Blackish. Antennæ somewhat thickest along the middle part. Legs rather stout; hind tibiæ with four rather long spurs. Wings very narrow. Fore wings with a nearly limpid spot on the exterior border near the tips. Hind wings grayish, semihyaline, not extending beyond the base of the abdomen. Length of the body 4½ lines; of the wings 11 lines.

a. Santarem. From Mr. Bates' collection.

PAMPA FLAVIFASCIA.

Nigra; alæ anticæ fascia exteriore pallidissime flava, posticæ cinereæ.

Amycles? flavifascia, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 231.

Pampa aliena, p. 241.

Rio Janeiro.

Genus URODUS.

Urodus, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1.

URODUS MONURA.

Nigra; alæ posticæ sublimpidæ, anticis vix breviores.

Urodus monura, *Moriz. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 219.

Venezuela.

URODUS XYLOPHILA.

Nigra; abdominis latera fasciculata; alæ posticæ sublimpidæ, anticis multo breviores.

Urodus xylophila, *Moriz. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 220.

Venezuela.

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ACLYTIA HEBER.

A. flavigutta, p. 246, is a variety of this species.

b. Santarem. From Mr. Bates' collection.

Var. *Alæ anticæ gutta subcostali testacea.*

Var. *Alæ anticæ fascia obliqua lutea.*

Var. Female. Brown. Antennæ black. Abdomen brilliant blue towards the tip. Fore wings with a testaceous dot near the costa at two-thirds of the length. Hind wings a little paler than the fore wings, grayish in front.

Valley of the Amazon. In Mr. Saunders' collection.

Var. Female. Black. Head partly luteous. Thorax with a luteous mark on each side in front. Abdomen dark blue for half the length from the tip. Coxæ luteous beneath. Fore wings with a slightly oblique luteous band beyond the middle. Hind wings limpid, with opaline lustre, and with very broad black borders.

a. Santarem. From Mr. Bates' collection.

Var. Luteous band of the fore wings reduced to a small round spot near the costa. Abdomen white beneath.

Brazil. In Mr. Saunders' collection.

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ANTICHLORIS ERIPHIA.

f. Santarem. From Mr. Bates' collection.

Var. Male. Gilded green. Head crimson behind. Proboscis and antennæ black. Palpi black, white beneath. Thorax crimson on each side in front. Pectus with white spots on each side. Abdomen above black, with three rows of triangular gilded green spots; under side with two lateral interrupted white stripes, which extend from the base to the middle. Fore coxæ white beneath. Wings dark brown. Hind wings whitish in front.

Var. Bluish green. Head white in front. Abdomen above mostly gilded green, not spotted; disk beneath white for half the length from the base.

Mexico and West Indies. In Mr. Saunders' collection.

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MACROCNEME MAJA.

q. Spirito Sancto, Brazil. From Mr. Stevens' collection.

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MACROCNEME CUPREIPENNIS.

Fœm. *Aureo-viridis; proboscis, palpi, antennæ pedesque nigra; alæ cupreæ.*

Female. Gilded green. Proboscis, palpi, antennæ and legs black; hind legs plumed as in *M. Maja*. Wings cupreous, which colour overspreads the whole surface, not being confined to part of it as is the metallic hue of *M. Maja*. Length of the body 6 lines; of the wings 18 lines.

a. ——? From Mr. Children's collection.

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HORAMIA PRETUS.

Var. β. Blackish. Head mostly luteous. Palpi luteous. Antennæ black, with luteous tips. Prothorax with three whitish marks, the middle one double. Thorax with four luteous stripes, the middle pair very short; a white dot at the base of each fore wing. Pectus with white dots. Abdomen luteous, with a blue band on each segment, with a short white band at the base, and with a transverse white spot on each side near the base. Legs luteous; anterior femora black; hind femora and hind tibiæ with black tips, the latter black at the base. Wings ferruginous, very narrow; hind wings tawny towards the base.

Var. γ. Head mostly yellow. Thorax with yellow marks, and with four dorsal spots instead of two dorsal stripes. Abdomen yellow instead of luteous, and with four transverse white spots.

Var. δ. Thorax luteous, with three black bands, and with a black stripe on each side.

d, e. St. Domingo. From Mr. Twedie's collection.
f, g. Venezuela. From Mr. Dyson's collection.

HORAMIA TARSALIS.

Fœm. *Æneo-viridis; caput subtus luteum; vertex luteo fasciatus; thorax luteo maculatus; abdomen e guttis luteis bivittatum; tarsi postici apice lutei.*

Female. Dull green, with a slight æneous tinge. Head luteous beneath, and with a transverse luteous spot on the vertex. Thorax with three luteous dots in front, and one at the base of each fore wing. Pectus with luteous dots. Abdomen with two lateral rows of luteous dots above and beneath. Legs long and slender; hind tarsi and tips of hind tibiæ ciliated, the former with pale luteous tips. Wings long and narrow. Length of the body 5 lines; of the wings 16 lines.

a. ———? From Mr. Stevens' collection.

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Genus AMYCLES.

Amycles, p. 253.

AMYCLES ANTHRACINA.

Mexico.

E. pectinata and *E. instructa* do not properly belong to this genus.

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PIONIA TERMINALIS.

Mas. *Lutea; palpi apice nigri, caput superantes; antennæ nigræ, mediocriter pectinatæ; abdomen alas posticas dimidio superans; alæ anticæ fascia apicibusque nigris; posticæ apud marginem exteriorem nigricantes.*

Male. Luteous. Proboscis testaceous. Palpi with black tips, extending some distance beyond the head. Antennæ black, moderately pectinated. Abdomen extending for near half its length beyond the abdomen. Legs mostly black; hind tibiæ with four moderately long spurs. Fore wings with a black band, and with black tips. Hind wings blackish along the exterior border. Length of the body 4 lines; of the wings 11 lines.

a. Brazil.

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PHAUDA FORTUNII.

Nov. Gen. Fortunii, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 223.

P. triadum, p. 257.

b. Shanghai. From Mr. Fortune's collection.

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DIPÆNÆ LATERALIS.

Fœm. *Cyaneo purpureoque nigra; palpi oblique ascendentes; antennæ supra ciliatæ; abdominis discus coccineus; alæ angustæ, anticæ apices versus subcupreæ, posticæ apud costam subcinereæ semihyalinæ.*

Female. Black, tinged with blue and purple. Palpi obliquely ascending, rather slender. Antennæ with a short thick fringe above. Abdomen with a crimson dorsal disk. Wings narrow. Fore wings with a slightly cupreous fringe towards the tips. Hind wings slightly grayish and semihyaline in front. Length of the body 4½ lines; of the wings 12 lines.

Parà. In Mr. Saunders' collection.

Genus AUTOMOLIS.

Automolis, *Hübn.*
Type, *A. Sphingidea.*

This genus may be divided into three groups, the first including *A. Sphingidea*, *angulosa*, *saturata* and *basalis*, the second with *A. chrysomelas*, and the third with *A. Capys*, *Thetis*, and *leucomelas*.

AUTOMOLIS ANGULOSA.

Fœm. *Nigro-fusca; thorax luteo bifasciatus; abdomen disco subtus fasciaque basali luteis; alæ anticæ fasciis duabus obliquis luteis apud costam approximantibus, posticæ luteæ marginibus latis fuscis.*

Female. Blackish brown. Thorax with a broad luteous band in front, and another along the hind border. Abdomen with a luteous band at the base; disk beneath luteous. Fore wings with two luteous bands, which are oblique in contrary directions, one near the base, the other near the tip. Hind wings paler luteous,

with broad brown borders. Length of the body 8 lines; of the wings 18 lines.

Brazil? In Mr. Saunders' collection.

AUTOMOLIS SATURATA.

Fœm. *Pallide fusca; caput luteum, cyaneo varium; palpi subtus lutei; thorax luteo bivittatus; abdomen basi luteum maculis lateralibus nigris, apice atrum e maculis cyaneis trivittatum; pedes lutei, fusco strigati; alæ testaceo venosæ, anticæ vitta discali strigaque subapicali luteis, posticæ luteæ margine exteriore fusco.*

Female. Pale brown. Head luteous, blue in front, and with a blue dot on the vertex. Palpi luteous beneath. Thorax with two broad luteous stripes. Pectus mostly luteous. Abdomen luteous, with black dots on each side for nearly half the length from the base; apical half deep black, with three rows of blue spots. Legs luteous, slightly streaked with brown. Wings with testaceous veins. Fore wings with a luteous discal stripe, which extends to full two-thirds of the length, and approaches an apical subcostal luteous streak. Hind wings luteous, brown along the exterior borders. Length of the body 7 lines; of the wings 16 lines.

Pará. In Mr. Saunders' collection.

AUTOMOLIS BASALIS.

Fœm. *Pallide fusca; caput cyaneo varium; palpi apice cyanei; thorax rufo varius; abdomen e maculis cyaneis trivittatum, triente basali rufa; alæ anticæ rufo guttatæ aut vittatæ.*

Female. Very pale brown. Head with a blue band in front, and with a blue spot at the base of each antenna. Palpi stout, ascending to the vertex; third small joint elongate-conical, with a blue tip. Antennæ dark brown, minutely pectinated. Thorax with an angular red mark in front, with a red stripe on each side, and with a red spot on the scutellum, which is partly blue. Abdomen with three rows of blue dots, extending for more than half its length beyond the hind wings; basal third part red. Hind tibiæ with four long spurs. Wings rather narrow. Fore wings with two red dots beyond half the length, one costal, the other subcostal; a red dot by the interior border near the base. Length of the body 16 lines; of the wings 18—20 lines.

Var. β. Fore wings with a slender undulating discal red stripe.

Valley of the Amazon. In Mr. Saunders' collection.

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AUTOMOLIS INORNATA.

Fœm. *Fusca; caput et thorax rufo guttata; abdomen apicem versus cyanescens.*

Female. Brown. Head with a red dot on each side behind. Antennæ black, serrated. Thorax with a red lateral dot in front of each fore wing. Abdomen bluish towards the tip. Wings unvaried, like the thorax in colour. Length of the body 5 lines; of the wings 16 lines.

a. West Coast of America. Presented by Capt. Kellett and Lieut. Wood.

AUTOMOLIS CHRYSOMELAS.

Fœm. *Nigro-fusca; caput cyaneo varium, maculis duabus ochraceis; thorax ochraceus, vitta dorsali fusca; abdomen e guttis cyaneis trivittatum vittis subtus duabus macularibus albis; alæ anticæ ochraceæ, margine fasciaque perobliqua fuscis; posticæ fuscæ, apud costam ochraceæ.*

Female. Blackish brown. Head partly blue, with an orange spot on each side behind. Thorax orange, with a slender brown dorsal stripe. Abdomen with three rows of blue dots; under side with two rows of white spots. Disks of the fore wings orange, which hue is truncated obliquely at the tips, and intersected beyond the middle by a very oblique brown band. Hind wings orange in front. Length of the body 6 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

AUTOMOLIS LEUCOMELA.

Mas. *Atra; abdomen alas posticas longissime superans maculis lateralibus albidis; alæ longæ, angustæ, anticæ apices versus niveæ.*

Allied to *A. Capys*. *Male.*—Deep black. Palpi stout, vertical, slightly curved, ascending a little higher than the head; third joint small. Antennæ slightly pectinated. Abdomen extending for three-fourths of its length beyond the hind wings, with two lateral

rows of white spots above and two beneath. Legs stout; hind tibiæ with four rather long spurs. Wings long and narrow. Fore wings snow-white towards the tips, almost straight along the costa, rounded at the tips, extremely oblique along the exterior border; veins blue on the under side. Length of the body 9 lines; of the wings 20 lines.

Parà. In Mr. Saunders' collection.

AUTOMOLIS SYPILUS.

Automolis Sypilus, *Hübn. Verz. Schmett.* 170, 1757.

AUTOMOLIS DOCIS.

Automolis Docis, (*Hipocrita Sphingiformis*) *Hübn. Samml. Exot. Schmett.* 32, 269, f. 537, 538.

Allied to *A. Sypilus*.

Cayenne.

AUTOMOLIS RUTILUS.

Ferruginea; caput luteum; thorax flavo quinque vittatus; abdomen nigrum vittis duabus lateralibus abbreviatis fulvis; alæ anticæ lineis posticis albis fasciis duabus nigris unaque flava; posticæ flavæ, nigro marginatæ.

Sphinx adscita Rutilus, *Cram. Pap. Exot.* iv. 183, pl. 382, f. B.
Caryatis Rutila, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Hipocritæ Sphingiformes*), 1171, 1761.

Allied to *A. opposita*.

Surinam.

AUTOMOLIS? ARONTES.

Pelochyta Arontes, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Hipocritæ Sphingiformes*), 172, 1771.

AUTOMOLIS? CORAS.

Ferruginea; alæ anticæ strigis transversis, exterioribusque glaucescentibus, striga oblonga vitrea; posticæ vitreæ, antice cervinæ, angulo interiore dilatato fusco.

Sphinx adscita Coras, *Cram. Pap. Exot.* iv. 46, pl. 312, f. A.
Acharia Coras, *Hübn. Verz. Schmett.* 124, 1340.

Surinam.

AUTOMOLIS REDUCTA.

Fœm. *Testaceo-albida; palpi apice fusci; antennæ nigræ subsetosæ, corpore paullo breviores; abdomen pallide luteum; tibiæ et tarsorum articuli apice fuscescentia; alæ anticæ vittis duabus pallide purpureis.*

Female. Whitish, with a slight testaceous tinge. Proboscis testaceous. Palpi with brown tips. Antennæ black, slender, minutely setose, about three-fourths of the length of the body. Abdomen pale luteous; tips of the tibiæ and of the joints of the tarsi brownish. Fore wings with a pale purplish stripe extending along the costa for more than half the length from the base, and another from the interior border to the tip near the exterior border. Length of the body 6 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

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EUCEREA SYLVIUS.

Var. ζ. Brown. Head testaceous about the eyes. Proboscis tawny. Palpi whitish, with brown tips. Thorax with brown stripes. Pectus whitish. Abdomen luteous along each side and at the tip; under side whitish, with brown spots along each side and a brown tip. Fore wings whitish, with many elongated brown spots. Hind wings whitish-hyaline, with brown borders.

In Mr. Saunders' collection.

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EUCEREA RHODOPHILA.

Fœm. *Nigricans; caput rufo biguttatum; thorax ferrugineo vittatus; abdomen coccineum, basi vittisque duabus fuscis; alæ ferrugineo venosæ, fasciis duabus abbreviatis albido-hyalinis; posticæ albido limpidæ, marginibus latis nigro-fuscis.*

Nearly allied to *E. Rosina*. *Female.*—Blackish brown. Head with a reddish dot on each side behind the antennæ. Palpi and antennæ black, the latter hardly pectinated. Thorax with ferruginous stripes. Abdomen crimson, brown at the base above, and with two brown lateral stripes, which form a subapical band beneath. Fore wings ferruginous along the veins, with two short

irregular discal whitish hyaline bands. Hind wings whitish limpid, with broad blackish brown borders. Length of the body 5 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

EUCEREA LATIFASCIA.

Fœm. *Obscure fusca; abdomen fasciis quatuor coccineis; 1a late interrupta; alæ anticæ albido variæ, venis pallide fuscis, posticæ apud discum limpidæ.*

Female. Dark brown. Head behind with luteous hairs. Proboscis tawny. Palpi and antennæ black. Abdomen with four crimson bands beyond the middle, the first widely interrupted. Coxæ partly reddish. Fore wings with pale brown veins, and with some irregular dingy whitish marks. Disks of the hind wings mostly limpid. Length of the body 6 lines; of the wings 16 lines.

Parà. In Mr. Saunders' collection.

EUCEREA MITIGATA.

Fœm. *Albida; thorax fusco interrupte vittatus; abdomen rufum maculis lateralibus apiceque fuscis; alæ anticæ e maculis fuscis fasciatæ, posticæ fuscæ, apud discum albidæ.*

Var. β. *Pallidissime fusca; thorax maculis vittisque fuscis albido marginatis; abdomen rufum, apice albido fascia subapicali fusca, subtus testaceum maculis lateralibus fuscis; alæ anticæ maculis fuscis albido marginatis, dimidio apicali albidæ; posticæ fuscæ.*

Female. Whitish. Head with a brown spot on the vertex; hind border luteous. Proboscis tawny. Antennæ black, minutely pectinated. Thorax with interrupted brown stripes. Abdomen red above, luteous beneath; a row of brown spots along each side; tip dark brown. Fore wings with several bands of brown spots, some of which beyond the middle are larger than the others and confluent; under side brown, with a few white spots. Hind wings brown, partly whitish in the disk. Length of the body 8 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

Var. β. *Female.* Very pale brown. Head whitish about the eyes, with a diamond-shaped spot on the vertex. Proboscis tawny.

Palpi partly black above. Antennæ dark brown, minutely pectinated. Thorax with whitish-bordered brown marks, which consist of four spots in front, two stripes on each side, and a spot on the scutellum. Abdomen red, paler in the middle than towards each side; a brown subapical band; tip whitish; under side testaceous, with a row of brown spots along each side. Legs whitish, streaked with brown. Fore wings whitish for more than half the length from the tips, with many brown spots, which towards the base have whitish borders; some beyond the middle are larger than the others, and are almost confluent. Hind wings brown. Length of the body 6 lines; of the wings 14 lines.

Vera Cruz. In Mr. Saunders' collection.

EUCERREA ALBICEPS.

Mas. *Obscure fusca; caput supra album; abdomen fasciis posticis luteis, 1a et 2a interruptis; alæ mediocriter latæ, anticæ cinereo subfasciatæ, posticæ albido hyalinæ fusco late marginatæ.*

Male. Dark brown. Head white above. Proboscis piceous. Antennæ black, hardly pectinated. Abdomen with luteous bands along more than half the length from the tip; first and second bands interrupted. Fore coxæ luteous beneath. Wings moderately broad. Fore wings with indistinct gray bands. Hind wings whitish hyaline, with broad brown borders. Length of the body 8 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

EUCERREA DISCOLOR.

Fœm. *Fusca, gracilis; caput supra cyaneum; abdomen basi subtus album; alæ anticæ albido variæ, posticæ albæ marginibus litturaque antica fuscis.*

Female. Brown, rather slender. Head blue, brown behind and beneath. Palpi and antennæ black, the latter hardly pectinated. Abdomen pale brown, darker towards the tip, white towards the base beneath. Wings narrow. Fore wings slightly convex in front, with several irregular whitish marks. Hind wings white, with brown borders, and with a brown mark in front. Length of the body 2 lines; of the wings 7 lines.

Brazil. In Mr. Saunders' collection.

EUCEREA DRYAS.

Nigra; abdomen luteum, guttis lateralibus apiceque nigris; alæ anticæ obscure fuscæ, posticæ cyaneæ, fusco latissime marginatæ.

Phalæna Dryas, *Cram. Pap. Exot.* i. 110, pl. 70, f. C.

West Indies.

EUCEREA SETOSA.

Fusca; thorax macula magna scutellari trigona albida; abdomen maculis lateralibus flavis; alæ anticæ maculis plurimis nigris testaceo marginatis. Mas.—*Alæ posticæ albæ, margine apicali cinereo.* Fœm.—*Alæ posticæ cinereæ, basi albæ.*

Phalæna-Bombyx setosa, *Anon. Ins. Surinam.* i. 25, pl. 9.

Surinam.

The larva of this species feeds on a Convolvulus, and, like the moth, resembles the *Acronyctæ*, and connects the *Noctuites* with the *Zygænidæ*.

EUCEREA SEDONIA.

Fusca; abdomen cinerascens; alæ anticæ fascia lutea albo marginata, macula oblonga transversa glauca, margine exteriore cinerascente; posticæ cinerascentes, fascia lata canescente, basi fuscæ.

Phalæna Sedonia, *Cram. Pap. Exot.* iv. 184, pl. 382, f. F.

Surinam.

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Genus SONTIA.

Corpus sat crassum. Antennæ longæ, corpore paullo breviores. Abdomen alas posticas paullo superans. Pedes validi, longiusculi. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice subangulatæ, margine exteriore perobliquo.

1. SONTIA NEUROPTERA.

Fuscescens; caput et thorax testaceo marginata; antennæ corpore vix breviores; abdomen luteum, disco nigro, vitta dorsali postica lutea; alæ vix vestitæ, marginibus obscurioribus, venis nigricantibus.

Phalæna-Bombyx neuroptera, *Anon. Ins. Surinam*, i. 83, pl. 38.

Surinam.

2. SONTIA CITRINA.

Citrina; antennæ corpore vix breviores; alæ anticæ fasciis linearibus venisque obscurioribus, nigro vix notatæ: posticæ albidæ, venis citrinis.

Phalæna-Bombyx citrina, *Anon. Ins. Surin.* 113, pl. 53.

Closely allied to the *Limacodidæ*, and also to the genus *Eucerea*. The larva feeds on the leaves of *Inga vera*.

Surinam.

3. SONTIA SESIA.

Citrina; antennæ corpore vix breviores, maris *subpectinatæ; thorax fusco bivittatus; alæ anticæ fasciis obliquis fuscis, posticæ albæ.*

Phalæna-Bombyx Sesia, *Anon. Ins. Surin.* 115, pl. 54.

Like the preceding species in structure. The larva feeds on the leaves of *Inga vera*.

Surinam.

4. SONTIA RHOMBOIDEA.

Mas. *Citrina; antennæ corpore vix breviores; alæ anticæ strigis transversis fulvis, vitta arcuata media lituraque subquadrata discali nigricantibus.*

Phalæna-Bombyx rhomboidea, *Anon. Ins. Surin.* 129, pl. 61.

This may be associated in a new genus with the two preceding species, or may form a new genus of itself, for it seems much less allied than the others to the *Limacodidæ*. The larva feeds on *Paspalium indicum*.

Surinam.

5. SONTIA BACTRIS.

Testacea; abdomen cinereum, fascia basali alba; alæ anticæ fasciis angulosis obliquis fuscis, posticæ cinereæ.

Phalæna (Noctua) Bactris, *Anon. Ins. Surin.* 223; pl. 100.

Much like the preceding species in structure. The larva feeds on the leaves of *Bactris acanthocarpa*.

Surinam.

6. SONTIA CRUCIFERA.

Fusca; abdomen luteum, fasciis nigris; alæ anticæ fasciis tribus obliquis obscurioribus, 3a marginali; posticæ gutta discali margineque obscurioribus.

Phalæna-Bombyx crucifera, *Anon. Ins. Surin.* 129, pl. 103.

Surinam.

7. SONTIA OBSCURA.

Nigro-fusca; abdomen luteum, fasciis nigris; alæ anticæ fasciis quatuor subobliquis cinereis.

Phalæna-Bombyx obscura, *Anon. Ins. Surin.* 241, pl. 109.

Surinam.

Page 278.

Genus ERNASSA.

Corpus robustum. Antennæ subsetosæ, apice subcrassiores, corpore paullò breviores. Abdomen alas posticas paullo superans. Pedes validi. Alæ latiusculæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore sat obliquo.

1. ERNASSA JUSTINA.

Fœm. *Ferrugineo-rufa; alæ anticæ linea obliqua nigra guttaque exteriore alba.*

Phalæna-Bombyx Justina, *Cram. Pap. Exot.* iv. 186, pl. 383, f. E. Automolis Justina, *Hübn. Verz. Schmett.* 171, 1760.

Surinam.

Page 279.

The family *Lithosiidæ* is somewhat heterogeneous with respect to the genera here included in it, and requires subdivision.

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The genus *Illiberis* may be united with *Northia*, p. 141, 1600. *Pintia* belongs to the *Chalcosiidæ*, and perhaps to *Eterusia*, in which genus it has most resemblance to *E. ferrea*. See pp. 411—441.

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Fam. CTENUCHIDÆ.

This family is closely allied to *Procris*.

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Genus CONSOPRIUM.

Consoprium, *Blanch.*, see p. 709.

CONSOPRIUM? DIVISUM.

Fœm. *Album; proboscis, antennæ, palpi apice pedesque nigra; abdomen purpureo-nigrum; alæ anticæ pallide cervinæ, albo venosæ, posticæ nigræ ciliis albis.*

Female. White. Proboscis and antennæ black. Palpi porrect, extending some distance beyond the head, white with black tips. Antennæ hardly pectinated. Abdomen purplish black, extending for one-third of its length beyond the hind wings. Legs black; hind tibiæ with four minute spurs. Fore wings pale fawn-colour, with white veins, darker beneath. Hind wings black, with a white fringe. Length of the body 5 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

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4. LYCOMORPHA DIMIDIATA.

Nigra; alæ anticæ basi flavæ.

Pyromorpha dimidiata, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* 1, f. 222.

Georgia.

Fam. MELAMERIDÆ.

In this family may be included *Lycomorpha*, *Josia*, *Dioptis* and *Chrysauge*, with the group or genera which they contain; also *Lyces*, *Scaptesyle*, *Corydalla*, *Isionda*, *Avela*, *Pitthea*, *Torina*, *Scotura?* and *Brycea*.

It has much affinity to the *Zygænidæ*, and also to the *Pyralites*.

The wings are very generally more or less black, occasionally with a metallic hue, very frequently adorned with bright colours, or partly limpid.

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JOSIA MITIS.

Fœm. *Fusca, vittis duabus lateralibus luteis; caput subtus luteum; proboscis, palpi et antennæ nigra; abdomen alas posticas perpaullo superans; pedes subcanescentes, femoribus luteo striatis; alæ anticæ vitta perangusta discali, posticæ vitta lata discali margineque interiore luteis.*

Female. Brown. Proboscis, palpi and antennæ black. Head luteous beneath. Thorax and abdomen with a luteous stripe along each side. Abdomen extending very little beyond the hind wings. Legs with a slight hoary tinge; femora with luteous streaks. Fore wings with a very slender discal luteous stripe. Hind wings black, with a broad luteous discal stripe; interior border luteous. Length of the body 5 lines; of the wings 16 lines.

Rio Grande. In Mr. Saunders' collection.

JOSIA? SEPARATA.

Fœm. *Atra; antennæ simplices, extrorsum vix crassiores; pectus luteo varium; abdomen luteum, vittis duabus ventralibus una dorsali apiceque nigris; pedes validi; tibiæ posticæ calcaribus duobus apicalibus sat longis; alæ longæ; anticæ maculis duabus discalibus luteis, una subtrigona, altera transversa elongata exteriore; posticæ luteæ marginibus latis nigris.*

Female. Deep black. Antennæ simple, very slightly increasing in breadth till near the tips. Pectus mostly luteous. Abdomen

luteous, black at the tip, and with a black dorsal stripe, and with one on each side beneath. Legs stout; femora with luteous hairs; hind tibiæ with two spurs of moderate length. Wings long, moderately broad. Fore wings very slightly convex in front, hardly angular at the tips, very oblique along the exterior border, with a nearly triangular discal luteous spot before the middle, and with an exterior discal transverse elongated luteous spot, which, like the other one, is much larger on the under side. Hind wings luteous, with broad black borders. Length of the body 8 lines; of the wings 20 lines.

a. New Grenada. From Mr. Stevens' collection.

JOSIA? CONTINUA.

Fœm. *Atra; palpi subtus lutei; thorax antice luteo fasciatus; pectus luteo varium; abdomen luteum, vitta dorsali nigra; alæ anticæ vitta discali fasciaque obliqua exteriore luteis; posticæ vitta lata discali lutea.*

Female. Deep black, in structure like *J. separata*. Palpi luteous beneath. Thorax with a luteous band in front. Pectus mostly luteous. Abdomen luteous, with a black dorsal stripe. Femora with luteous hairs. Fore wings with a luteous discal streak, which extends from the base to less than half the length, and is much dilated beneath, and with an exterior oblique pale luteous band. Hind wings with a broad discal luteous stripe. Length of the body 7 lines; of the wings 22 lines.

a. St. Domingo. From Mr. Tweedie's collection.

JOSIA TRAJECTA.

Mas. *Obscure fusca; caput antice testaceum; prothorax luteus; abdomen subtus luteum, apice albidum; coxæ et femora testacea; alæ fascia semihyalina-flava, anticæ fascia exteriore obliqua flava; posticæ marginibus subtus ciliisque luteis.*

Male. Dark brown. Head testaceous in front. Prothorax luteous. Abdomen luteous beneath, whitish at the tip. Coxæ and femora testaceous. Wings with a yellow-semihyaline band. Fore wings with an oblique abbreviated exterior yellow-semihyaline band. Hind wings with luteous ciliæ; under side luteous about the borders. Length of the body 7 lines; of the wings 16 lines.

a. ——— ?

JOSIA? FUSIFERA.

Mas. *Atra; antennæ subpectinatæ; alæ anticæ fusiformes, vitta discali longi-fusiformi lutea; posticæ luteæ, nigro marginatæ, apud apices oblique subtruncatæ.*

Male. Deep black. Antennæ minutely pectinated. Fore wings fusiform, narrower than those of the two preceding species, and consequently more oblique along the exterior border; an elongated fusiform luteous stripe in the disk. Hind wings luteous, with broad black borders, convex in front, somewhat obliquely truncated towards the tips. Length of the body 6 lines; of the wings 18 lines.

a. New Grenada. From Mr. Stevens' collection.

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SCEA? PUELLA.

Fœm. *Æneo-nigra, schistaceo micans; thorax luteo bivittatus; abdomen apice albidum; alæ anticæ luteæ costa apicibusque nigris, vitta postica æneo-nigra.*

Female. Æneous-black, with slaty lustre. Antennæ slender, simple, setaceous, somewhat shorter than the body. Thorax with two luteous stripes. Abdomen slender, extending for one-third of its length beyond the hind wings; tip whitish. Legs very slender; hind tibiæ with four long spurs. Fore wings luteous, except along the costa and towards the tips; a slender æneous-black stripe near the interior border. Length of the body 3¼ lines; of the wings 9 lines.

This species will form a new genus between the *Pyralites* and the *Melameridæ*, and it approaches much nearer than *S. auriflamma* to the *Pyralites*. It may be distinguished from the above species by its more slender antennæ and abdomen, by its longer and more slender legs, and by the much longer spurs of the hind tibiæ.

Brazil. In Mr. Saunders' collection.

SCEA INFANS.

Fœm. *Nigra; alæ anticæ fascia lata obliqua abbreviata exteriore pallide flava.*

Female. Black. Antennæ simple, setaceous, more than half the length of the body. Abdomen extending for one-third of its

length beyond the hind wings. Hind tibiæ with four long spurs. Wings rather long, moderately broad. Fore wings nearly straight in front, rounded at the tips; rather oblique along the exterior border, with a broad oblique pale yellow band, which does not extend to the borders. Length of the body 3 lines; of the wings 8 lines.

Parà. In Mr. Saunders' collection.

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Genus HIPOCRITA.

Hipocrita, p., *Hübn.*
Calosoma, *Geyer.*

HIPOCRITA MUTATA.

Var. Abdomen luteous towards the base beneath. Spot towards the tips of the fore wings and that on the under side of the hind wings of moderate size.

In Mr. Saunders' collection.

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HIPOCRITA DISCOLORIA.

Nigra; abdomen cinereum; alæ anticæ vitta antica lutea, posticæ nigro-cinereæ.

Phalæna (Noctua) discoloria, *Anon. Ins. Surin.* i. 95, pl. 44.

The larva feeds on the leaves of *Passiflora Vespertilio.*

Surinam.

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EPHIALTIA SIMPLEX.

Fœm. *Nigra; alæ anticæ fascia abbreviata obliqua subapicali pallide flava, posticæ vitta lata brevi discali albo-hyalina.*

Female. Black. Abdomen extending for about half its length beyond the hind wings. Hind tibiæ with four long spurs. Wings rather long and narrow. Fore wings with an abbreviated oblique pale yellow subapical band. Hind wings with a broad short white-hyaline discal stripe, which is slightly notched in front of the tip. Length of the body 5 lines; of the wings 13 lines.

Parà. In Mr. Saunders' collection.

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ACTEA REMOTA.

Fœm. *Fusca; palpi testacei, arcuati; pectus albidum; abdomen luteo trivittatum, subtus albidum; pedes albidi; alæ anticæ vitta basali fasciaque exteriore obliqua testaceis, maculaque subapicali alba subhyalina; posticæ pallide luteæ, marginibus latis fuscis.*

Female. Brown. Proboscis piceous. Palpi testaceous, much curved, not ascending to the vertex. Pectus whitish. Abdomen with three luteous dorsal stripes; under side whitish. Legs whitish; hind tibiæ with four rather long spurs. Fore wings with a testaceous basal stripe in the disk, with a testaceous oblique exterior band, and with a white nearly hyaline subapical spot. Hind wings pale luteous, with broad brown borders. Length of the body 4 lines; of the wings 14 lines.

a. West Coast of America. Presented by Capt. Kellet and Lieut. Wood.

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MYONIA EVIPPE.

b. Villa Nova. From Mr. Bates' collection.

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EPIDESMA URSULA.

Epidesma Ursula, *Hübn. Verz. Schmett.* 176, 1822.

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LEUCOPSUMIS GUTTIPALPIS.

Mas. *Nigra; caput luteum; palpi lutei, maculis apicibusque nigris; abdomen maculis posticis æneis trivittatum; alæ anticæ macula exteriore transversa oblonga albo-hyalina; posticæ vitta discali albo-hyalina.*

Male. Black. Head luteous. Proboscis tawny. Palpi luteous, each with a black spot; tips black. Abdomen extending a little beyond the hind wings, with very slight metallic lustre, and towards the tip with three rows of dull æneous spots. Hind tibiæ with four long spurs. Fore wings with a transverse oblong white-

hyaline spot beyond the middle. Hind wings with a white hyaline discal stripe. Length of the body 6 lines; of the wings 16 lines.

Brazil? In Mr. Saunders' collection.

Genus CORYDALLA.

Corpus sat validum. Proboscis longiuscula. Palpi porrecti, caput superantes; articulus 3us conicus, brevis. Antennæ corporis dimidio longiores. Abdomen alas posticas superans. Tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ, sat augustæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore perobliquo. *Mas.*—Antennæ subpectinatæ. *Fœm.*—Antennæ vix pectinatæ.

Body moderately stout. Proboscis elongate. Palpi porrect, straight, extending some distance beyond the head; third joint conical, not one-fourth of the length of the second. Antennæ more than half the length of the body. Abdomen extending rather beyond the hind wings. Hind tibiæ with four moderately long spurs. Wings rather long and narrow. Fore wings hardly convex in front, rounded at the tips, extremely oblique along the exterior border; first inferior vein curved, united to the second at the base; third about four times further from the fourth than from the second. *Male.*—Antennæ slightly pectinated. *Female.*—Antennæ hardly pectinated.

1. CORYDALLA CRYPTOLEUCA.

Mas et fœm. *Atra, cyaneo trivittata; caput cyaneum; abdomen subtus album; alæ cyaneo strigatæ, anticæ e maculis duabus oblongis obliquis albis fasciatæ, posticæ subangulosæ, macula postica cinerea.*

Deep black. Head mostly blue. Thorax and abdomen with three blue stripes. Abdomen beneath with a white disk. Coxæ white beneath. Wings with blue streaks. Fore wings beyond the middle with an oblique white band, which is composed of two oblong spots; these form a continuous line on the inner side. Hind wings with a hind grayish spot, very slightly angular beyond the middle of the exterior border. Length of the body 6—7 lines; of the wings 18 lines.

Parà. Valley of the Amazon. In Mr. Saunders' collection.

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SAGARIS STYGNE.

Fœm *Aterrima ; caput subtus luteum ; alæ anticæ fascia exteriore subobliqua lutea.*

c. Tapayos. From Mr. Bates' collection.

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ERBESSA SOBRIA.

c. Parà. From Mr. Stevens' collection.

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EUAGRA CŒLESTINA.

Agyrta cœlestina, *Hübn. Verz. Schmett.* 177, 1830.

EUAGRA DISCALIS.

Mas. *Cyaneo-nigra ; abdomen vittis duabus purpureo-cyaneis, subtus album ; pedes subtus albi ; alæ anticæ macula fasciaque exteriore brevi obliqua albo limpidis, posticæ albo limpidæ, margine lato nigro.*

Male. Black. Body bluish black. Abdomen with a light purplish blue stripe along each side, extending for about half its length beyond the abdomen; under side and legs beneath white. Hind tibiæ with four rather short spurs. Fore wings with two whitish limpid spots; one small and before the middle; the other exterior, large, oblong, and obliquely transverse. Hind wings whitish limpid, with broad black borders. Length of the body 5 lines; of the wings 14 lines.

Valley of the Amazon. In Mr. Saunders' collection.

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AGYRTA DUX.

d. Venezuela. From Mr. Dyson's collection.

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AGYRTA SECTA.

Fœm. *Nigra; caput antice album; prothorax utrinque luteus, subtus albus; abdomen viride, subtus album; pedes longi, graciles, subtus albi; alæ anticæ macula fasciaque exteriore obliqua abbreviata albo limpidis; posticæ albo limpidæ, marginibus latis nigris.*

Female. Black. Head white in front. Antennæ slender, simple, nearly as long as the body. Prothorax luteous on each side, white beneath. Abdomen bright green, extending for one-third of its length beyond the hind wings, white and shining beneath, as are also the legs. Legs long and slender; hind tibiæ with four long spurs. Wings and their veins black, green at the base. Fore wings with two limpid spots; the first much smaller than the exterior one, which is oblong and obliquely transverse. Hind wings with a limpid discal stripe. Length of the body 5 lines; of the wings 15 lines.

Valley of the Amazon. In Mr. Saunders' collection.

This species might form a new genus, as it differs somewhat in structure from others included with it under the name *Agyrta*, and is perhaps as nearly allied to the *Pyralites* as to the *Melameridæ*.

AGYRTA NANA.

Mas. *Nigra, subtus albida; abdomen alas posticas vix superans; alæ limpidæ, venis apicibus marginibusque latis nigris.*

Male. Black, whitish beneath. Antennæ slightly pectinated, much more than half the length of the body. Abdomen hardly extending beyond the hind wings. Hind tibiæ with four moderately long spurs. Wings limpid, with black veins, black tips and broad black borders. Length of the body 2½ lines; of the wings 9 lines.

Valley of the Amazon. In Mr. Saunders' collection.

Genus GNOPHÆLA.

This genus is somewhat allied to *Trichela*, pp. 208, 1621.

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HERMENA VINOSA.

Ephestris vinosa, *Hübn. Verz. Schmett.* 178, 1839.

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LAURONA MEON.

Dioptis Meone, *Hübn. Verz. Schmett.* 174, 1793.

Page 336.

LOCHA DIAPHANA.

Hyelosia diaphana, *Hübn. Verz. Schmett.* 174, 1798.

This species appears to connect *Dioptis* with the *Liparidæ* by means of *Penora* and the following genera. See p. 821.

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DIOPTIS ? PERDICA.

Dioptis Perdica, *Hübn. Verz. Schmett.* 174, 1794.

Fam. PERICOPIDÆ.

The genera *Esthema*, *Heleona*, *Hyalurga*, *Cistidia*, *Dysphania*, *Pericopis*, *Phalæ*, *Phalæsia*, *Composia* and *Eucyane*, may be included in this family. It is connected with the *Melameridæ* by means of *Esthema* and *Eucyane*, and has some affinities with the *Arctiidæ*. It is composed of large species, which often have pale dots on the head and on the thorax, and whose wings are ample and frequently more less vitreous.

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ESTHEMA BICOLORA.

This and *E. dichroa* are one species.

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HYALURGA FENESTRA.

Zygæna Egeon? *Fabr. Sp. Ins.* ii. 161, 23; *Mant. Ins.* ii. 104, 28; *Ent. Syst.* iii. 395, 30.
Sphinx Zygæna Egeon, *Gmel. ed. Syst. Nat.* i. 5, 2395, 130.

The genus *Gyara*, p. 915, must be transferred to this family, and is closely allied to *Hyalurga*.

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HYELOSIA TIRESIA.

Dysschema Tiresias, *Hübn. Verz. Schmett.* 175, 1805.

HYELOSIA HYPOXANTHA.

Dysschema Hypoxantha, *Hübn. Zeitr.* 191, 192. *Verz. Schmett.* 175, 1807.

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PERICOPIS TURBIDA.

Hyelosia Aglaura, *Hübn. Verz. Schmett.* 174, 1799.

PERICOPIS LARVATA.

Fœm. *Nigro-fusca, guttis anticis albis; abdomen albido bivittatum; alæ anticæ fasciis duabus abbreviatis obliquis semihyalinis sordide testaceis, subtus basi rufo bimaculatæ; posticæ nigræ, basi flavæ, maculis nonnullis exterioribus rufis unaque flava.*

Female. Blackish brown. Head, palpi and fore part of the thorax with white dots. Antennæ black, minutely serrated. Abdomen with two very indistinct and diffuse pale stripes; under side with two distinct and complete whitish stripes. Fore wings with two short oblique semihyaline dingy testaceous bands, the exterior one attenuated in front; under side with two red spots at the base. Hind wings black, yellow towards the base, with one yellow and with several indistinct red exterior spots. Length of the body 11 lines; of the wings 34 lines.

Valley of the Amazon. In Mr. Saunders' collection.

PERICOPIS DISJUNCTA.

Fœm. *Fusca; caput albo guttatum; palpi albo vittati; thorax flavo maculatus; abdomen luteum, nigro trivittatum, subtus testaceum nigro bivittatum; pedes testaceo varii; alæ anticæ basi cervinæ fasciisque duabus exterioribus obliquis flavis, la postice fulva; posticæ fascia ramosa margineque nigris, hoc albo-guttato.*

Female. Brown. Head and palpi blackish brown. Head with white dots. Palpi striped with white. Antennæ black, minutely serrated. Thorax with yellow spots in front. Abdomen luteous, with three black stripes; under side testaceous, with a black stripe on each side. Legs partly testaceous. Fore wings fawn-colour in front at the base; two oblique yellow bands, the first interrupted in the middle, changing to tawny hindward; the second short. Hind wings luteous, with a slightly ramose black band, and with a black border; the latter with white dots. Length of the body 9 lines; of the wings 32 lines.

Colombia. In Mr. Saunders' collection.

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COMPOSIA SYBARIS.

e, f. St. Domingo. From Mr. Tweedie's collection.

OPHTHALMIS PUNCTIGERA.

Lutea; alæ anticæ subpurpureæ, fascia arcuata fusco marginata, macula subapicali nigra luteo marginata.

Phalæna Attacus punctigera, *Linn. Mus. Lud. Ulr.* 380; *Syst. Nat.* i. 812, 15. *Clerck. Icon.* pl. 50, f. 3.
Phalæna Hilaria, *Cram. Pap. Exot.* ii. 26, pl. 113, f. F.
Ophthalmis punctigera, *Hubn. Verz. Schmett.* 166, 1720.

Surinam.

This species may be one of the *Geometrites*.

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EUCYANE TEMPERATA.

Mas. *Cyanea; caput albo guttatum; palpi subtus albi; abdomen subtus vitta lata coccinea fasciisque perangustis albis; alæ nigræ, basi cyaneæ, anticæ fascia obliqua, posticæ macula discali rufis semihyalinis.*

Male. Bright blue. Head with white dots. Palpi black, white beneath. Antennæ black, very minutely pectinated. Abdomen beneath mostly black, with a broad crimson stripe, and with a slender white band on the hind border of each segment. Legs black, white beneath. Wings black, bright blue at the base; ciliæ white at the tips of the fore wings and on part of the exterior border of the hind wings; fore wings with an oblique pale red semihyaline band; hind wings with a discal spot of the same hue. Length of the body 8 lines; of the wings 22 lines.

a. Tapayos. From Mr. Bates' collection.

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MILIONIA GLAUCA.

Epidesma Pyrrho, *Hübn. Verz. Schmett.* 176, 1821.

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LYCES? PLAGIFERA.

Obscure fusca, subtus albida; caput supra luteum; palpi lutei, fusco varii; pedes albidi; alæ anticæ apicibus albis maculisque duabus flavo-albis, venis ferrugineis; posticæ vitta lata discali flavo-alba. Mas.—*Antennæ subpectinatæ; abdomen alas posticas superans.* Fœm.—*Antennæ simplices; abdomen alas posticas vix superans.*

Dark brown, whitish beneath. Head luteous between the antennæ. Proboscis testaceous. Palpi luteous, partly brown, more ascending than those of *L. flavissima*. Legs whitish; hind tibiæ with four moderately long spurs. Fore wings with white tips, and with two yellowish white spots, one by the middle of the costa, the other near the interior angle; veins ferruginous. Hind wings with a broad yellowish white discal stripe, which does not extend to the tips. *Male.*—Antennæ minutely pectinated. Abdomen extending somewhat beyond the hind wings. *Female.*—Antennæ simple

Abdomen hardly extending beyond the hind wings. Length of the body 7 lines; of the wings 18—20 lines.

Valley of the Amazon. In Mr. Saunders' collection.

LYCES ALBIVENTRIS.

Mas. *Nigra, subtus alba; antennæ subpectinatæ, corporis dimidio vix breviores; prothorax luteus; abdomen vittis duabus lateralibus luteis; pedes albidi; alæ flavæ, marginibus apud costam dilatatis nigris.*

Male. Black, white beneath. Antennæ minutely pectinated, nearly half the length of the body. Prothorax luteous. Abdomen with a luteous stripe along each side, hardly extending beyond the hind wings. Legs whitish, slender, short; hind tibiæ with four small spurs. Wings bright yellow, with broad black borders, which are dilated and angular in the middle of the costa, and are broadest at the tips of the fore wings. Length of the body 5½ lines; of the wings 16 lines.

Valley of the Amazon. In Mr. Saunders' collection.

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FLAVINIA FUSIFERA.

Fœm. *Atra, vix cyanescens; antennæ serratæ; palpi caput vix superantes; abdomen alas posticas vix superans; tibiæ posticæ calcaribus quatuor minutis; alæ pallide luteæ, longiusculæ, mediocriter latæ, nigro marginatæ.*

Female. Deep black, very slightly tinged with blue and purple. Antennæ serrated, not more than half the length of the body. Palpi extending very little beyond the head. Abdomen hardly extending beyond the hind wings. Hind tibiæ with four minute spurs. Wings pale luteous, rather long, moderately broad, with black borders, which are much broader in the fore wings than in the hind wings. Length of the body 7 lines; of the wings 20 lines.

Sante Fé de Bogotà. In Mr. Saunders' collection.

Genus ISIONDA.

Fœm. Corpus sat robustum. Proboscis longiuscula. Palpi arcuati, incumbentes, verticem attingentes. Antennæ graciles, subserratæ, corporis dimidio multo longiores. Abdomen elongatum,

alas posticas dimidio superans. Pedes graciles, longiusculi; tibiæ posticæ calcaribus quatuor longis. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice subangulatæ, margine exteriore mediocriter obliquo.

Much resembling the *Pyralites*. *Female.*—Body moderately stout. Proboscis elongate. Palpi curved, ascending to the vertex, incumbent on the head. Antennæ slender, minutely serrated, much more than half the length of the body. Abdomen elongate, extending for half its length beyond the hind wings. Legs slender, rather long; hind tibiæ with four long spurs. Wings moderately broad. Fore wings nearly straight in front, almost angular at the tips, moderately oblique along the exterior border; second inferior vein full six times further from the third than from the first. Hind wings almost angular on the exterior border.

ISIONDA PYRALOIDES.

Fœm. *Atra; caput subtus luteum; palpi pedesque subtus, antennæ basi, pectus, abdominis vittæ laterales et venter alba; thoracis guttæ duæ anticæ, vittæ duæ laterales abdominisque maculæ dorsales luteæ; alæ anticæ macula transversa exteriore postioeque vitta interrupta luteis.*

Female. Deep black. Head luteous beneath. Palpi white beneath. Antennæ white at the base. Thorax with a luteous dot in front, and with a short luteous stripe on each side. Pectus white. Abdomen with luteous dorsal spots, and with a slender white stripe along each side; under side white. Legs white beneath. Wings with white streaks beneath at the base. Fore wings with a transverse luteous spot beyond the middle. Hind wings with a luteous stripe, which is interrupted near the interior border; under side white along the interior border. Length of the body 7¼ lines; of the wings 16 lines.

a. Tapayos. From Mr. Bates' collection.

Genus AVELA.

Mas. Corpus sat gracile. Proboscis longiuscula. Palpi ascendentes, sat longi; articulus 3us lanceolatus, 2i dimidio brevior. Antennæ mediocriter pectinatæ, corpore paullo breviores. Abdomen alas posticas dimidio superans. Pedes longiusculi; tibiæ posticæ calcaribus quatuor minutis. Alæ angustæ; anticæ vix acuminatæ, apud costam rectæ, margine exteriore perobliquo.

Male. Body rather slender. Proboscis elongate. Palpi ascending, rather long; third joint lanceolate, less than half the length of the second. Antennæ moderately pectinated, nearly three-fourths of the length of the body. Abdomen extending for half its length beyond the hind wings. Legs rather long; hind tibiæ with four minute spurs. Wings narrow. Fore wings straight in front, hardly acuminated at the tips, extremely oblique along the exterior border; first, second and third inferior veins approximate at the base; fourth very remote.

AVELA DIVERSA.

Mas. *Nigricans; caput antice, palpi subtus, thoracis latera antica, abdominisque vittæ duæ ventrales albida; alæ flavæ, anticæ basi dimidioque apicali fasciam obliquam flavam includente nigris, posticæ nigro marginatæ.*

Male. Blackish. Head whitish in front. Palpi whitish beneath. Thorax whitish on each side in front. Abdomen with a whitish stripe along each side beneath. Wings yellow. Fore wings black at the base; apical half obliquely black, including an oblique yellow band. Hind wings with a broad blackish border, which is very narrow for a short space towards the tip of the exterior margin. Length of the body 5 lines; of the wings 16 lines.

Brazil. In Mr. Saunders' collection.

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CHRYSAUGE? FLAVELATA.

Nigra; alæ flavæ, nigro late marginatæ, anticæ apices versus nigræ macula flava.

Phalæna flavelata, *Cram. Pap. Exot.* iv. 112, pl. 348, f. B.

Surinam.

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Fam. NYCTEMERIDÆ.

This family will comprehend the genera *Devara*, *Aletis*, *Mennis*, *Phægorista*, *Stenele*, *Erchia*, *Massaga*, *Eudule?* *Rhosus*, *Sangala*, *Nelo*, *Melanchroia*, *Nyctemera*, *Pterothysanus*, *Otroeda*, *Euschema?* *Præsos*, *Barbicornis?* *Psychomorpha?* *Caralisa* and *Arina*.

Some of the genera, like a few of the *Pericopidæ* and of the *Chalcosiidæ*, have much resemblance to the *Rhopalocera*. The body

is slender and the wings ample, and they have a general resemblance to the *Geometrites*.

Genus DEVARA.

Mas. Corpus gracile. Proboscis longiuscula. Palpi breves, porrecti, caput vix superantes; articulus 3us conicus, minutus. Antennæ sat late pectinatæ, corporis dimidio longiores. Pedes graciles; tibiæ posticæ calcaribus duobus apicalibus breviusculis. Alæ latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo; posticæ abdomen superantes.

Male. Body slender. Proboscis elongate. Palpi short, porrect, hardly extending beyond the head; third joint conical, minute. Antennæ rather deeply pectinated, somewhat more than half the length of the body. Abdomen not extending so far as the hind wings. Legs slender; hind tibiæ with two rather short apical spurs. Wings broad. Fore wings straight in front, rounded at the tips, rather oblique along the exterior border; first, second and third inferior veins approximate at the base; fourth rather remote.

1. DEVARA ERYCINOIDES.

Chrysauge erycinoides, p. 373.

Genus CARALISA.

Mas. Corpus vix robustum. Proboscis longiuscula. Palpi porrecti, caput longe superantes; articulus 3us elongatus, acuminatus; 2i dimidio longior. Antennæ mediocriter pectinatæ, corporis dimidio longiores. Abdomen alas posticas non superans. Pedes graciles; tibiæ posticæ calcaribus quatuor breviusculis. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

Male. Body hardly stout. Proboscis elongate. Palpi porrect, extending far beyond the head; third joint elongated, acuminated, much more than half the length of the second. Antennæ moderately pectinated, much more than half the length of the body. Abdomen extending as far as the hind wings. Legs slender; hind tibiæ with four rather short spurs. Wings moderately broad. Fore wings straight in front, rounded at the tips, very oblique along the exterior border; first, second and third inferior veins nearly contiguous; fourth remote.

1. CARALISA EDITHA.

Mas. *Cyanea; caput subtus, palpi basi, abdominis vitta dorsalis et venter coccinea; caput apud oculos album; alæ marginibus latis nigris ciliis albis.*

Male. Deep blue. Head crimson beneath, white about the eyes. Proboscis testaceous. Palpi crimson at the base. Disk of the abdomen with a short broad crimson stripe, which tapers in front; under side crimson. Wings with broad black borders; ciliæ white. Length of the body 6 lines; of the wings 18 lines.

Hayti, St. Domingo. In Mr. Saunders' collection.

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EUDULE VARIEGATA.

e. St. Domingo. From Mr. Tweedie's collection.

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SANGALA BEATA.

Mas. *Atra; caput albo varium; palpi subtus albi; abdomen e maculis albis rufisque quadrivittatum, vittis subtus duabus macularibus albis; pedes subtus albo vittati; alæ discis cyaneis, subtus rufæ, anticæ dimidio apicali subtus nigro maculis albis, posticæ subtus margine nigro albo maculata.*

Male. Deep black. Head mostly white beneath and about the eyes. Palpi white beneath. Abdomen with four lateral stripes of white and red spots; under side with two stripes of larger white spots. Legs striped with white beneath. Wings with deep bright blue disks; under side red. Fore wings beneath black for half the length from the tips, with some subapical white spots. Hind wings with a black border, which is interrupted by white spots. Length of the body 5—6 lines; of the wings 16—18 lines.

Santa Fé de Bogatà. In Mr. Saunders' collection.

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MELANCHROIA PYLOTIS.

h. Villa Nova. From Mr. Bates' collection.

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MELANCHROIA SUBVITTATA.

Mas et fœm. *Nigro-fusca; abdomen apice luteum; alæ albo subpunctatæ anticæ subferrugineæ, macula oblonga obliqua discali alba; posticæ macula discali alba basim versus attenuata, vittisque subtus duabus posterioribus albis.*

Male and female. Blackish brown. Proboscis testaceous. Palpi and antennæ black. Abdomen luteous at the tip. Wings with white ciliæ at the tips, slightly and very minutely flecked with white. Fore wings with a slight ferruginous tinge, and with an oblong oblique white discal spot. Hind wings with an oblong white spot, which is almost parallel to the length, and is attenuated towards the base, and especially so on the under side, where it is accompanied by two posterior white stripes. Length of the body 5—6 lines; of the wings 16—18 lines.

Brazil. In Mr. Saunders' collection.

New genus? ERNESTINA.

Cyanescens; alæ nigræ, plagis quatuor transversis albis lineaque exteriore cyanescente.

Phalæna Geometra Ernestina, *Cram. Pap. Exot.* iv. 155, pl. 369, f. F.

Melanchroia Ernestina, *Hübn. Verz. Schmett.* 173, 1791.

Amboina.

Genus ARINA.

Mas. Corpus gracile. Proboscis longiuscula. Palpi longi, arcuati, reflexi, verticem attingentes. Antennæ mediocriter pectinatæ, apice serratæ, corporis dimidio longiores. Abdomen alas posticas non superans. Pedes graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latiusculæ; anticæ apud costam subrectæ, apice rotundatæ margine exteriore subobliquo.

Closely resembles the genera *Melanchroia* and *Nyctemera*, but is much more allied than them to the *Pyralites*. *Male.*—Body slender. Proboscis elongate. Palpi long, curved, ascending to the vertex. Antennæ more than half the length of the body, moderately pectinated for full three-fourths of the length from the base,

serrated from thence to the tips. Abdomen extending as far as the hind wings. Legs slender; hind tibiæ with four spurs of moderate length. Wings rather broad. Fore wings nearly straight in front, much rounded at the tips, slightly oblique along the exterior border; first, second and third inferior veins approximate at the base; fourth remote.

1. ARINA OBTUSA.

Mas. *Nigro-fusca; caput albo varium; palpi, abdomen et pedes subtus alba; thorax luteo bivittatus; alæ anticæ basi albo venosæ, macula exteriore discali albida guttaque subapicali lutea; posticæ fascia lata abbreviata alba.*

Male. Blackish brown. Head white in front and about the eyes. Palpi white beneath. Thorax with a dull luteous stripe along each side. Abdomen and legs white beneath. Fore wings with whitish veins towards the base, with an exterior discal whitish spot, which is most apparent beneath, and with a subapical luteous dot. Hind wings with a broad irregular white band, which does not extend to the fore border. Length of the body 4 lines; of the wings 12 lines.

Brazil. In Mr. Saunders' collection.

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NYCTEMERA APICALIS.

l. Port Natal. From M. Gueinzius' collection.

NYCTEMERA LACTICINIA.

e. Ceram. From Madame Ida Pfeiffer's collection.

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NYCTEMERA COLITA.

g. Ceram. From Madame Ida Pfeiffer's collection.

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NYCTEMERA VARIANS.

Var. Discal spots of the hind wings obsolete.

In the collection of the Entomological Society.

NYCTEMERA RADIATA.

Mas. *Nigra; caput luteo-album, nigro bimaculatum; palpi albi, apice nigri; thorax albo vittatus; pectus album, nigro maculatum; abdomen albidum, apice luteum; pedes albo vittati; alæ anticæ nigro-fuscæ, radiis basalibus fasciaque lata exteriore obliqua interrupta albis, posticæ albæ marginibus nigro-fuscis.*

Male. Black. Head white, with a luteous tinge, and with a black spot on the front and another behind. Proboscis tawny. Palpi white, with black tips. Thorax with white stripes. Pectus white, with black spots. Abdomen whitish; tip luteous. Legs with white stripes. Fore wings blackish brown, with white rays extending along half the length from the base, and with a broad exterior oblique interrupted white band. Hind wings white, with blackish brown borders. Length of the body 6 lines; of the wings 18 lines.

Manilla. In Mr. Saunders' collection.

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NYCTEMERA ARCTATA.

Mas. *Lutea; caput nigro biguttatum, palpi nigri; antennæ sat late pectinatæ; thorax et coxæ nigro maculata; abdomen fasciis dorsalibus maculisque lateralibus nigris; pedes fusci; alæ albæ, anticæ fusco trifasciatæ, posticæ maculis submarginalibus fuscis.*

Male. Luteous. Head with a black dot in front and another behind. Proboscis tawny. Palpi and antennæ black, the latter rather deeply pectinated. Thorax, pectus and coxæ with black spots. Abdomen with black bands, and with four rows of black spots, two above and two beneath. Legs brown. Wings white. Fore wings with three brown bands; first band shortened hindward, connected on the costa with the second, which is slightly interrupted and accompanied by a spot in the middle; third band marginal, and including some white spots along the exterior border. Hind wings with brown submarginal spots. Length of the body 8 lines; of the wings 24 lines.

Cherra Poonjee, Hindostan. In Mr. Saunders' collection.

NYCTEMERA SPECULARIS.

Mas. *Albido-testacea; palpi nigri; thorax nigro guttatus; alæ albæ, anticæ fusco bifasciatæ, venis fusco marginatis, margine exteriore fusco albo bimaculato; posticæ marginibus latis fuscis albo bimaculatis.*

Male. Whitish testaceous. Proboscis, palpi and antennæ black. Thorax with black dots. Wings white. Fore wings brown along the veins, and with two slight brown bands, which are abbreviated hindward, wholly brown towards the exterior border, with the exception of two white submarginal spots. Hind wings with broad brown borders, each of which contains two white spots. Length of the body 6 lines; of the wings 18 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

Fœm.? *Fusca; proboscis et abdomen testacea; palpi et antennæ nigra; alæ anticæ striga basali maculaque magna exteriore oblonga transversa discalibus necnon maculis tribus parvis submarginalibus albis; posticæ albæ, fasciis latis fuscis albo triguttatis.*

Female? Brown. Proboscis and abdomen testaceous. Palpi and antennæ black. Fore wings with a white discal streak proceeding from the base, with an exterior large oblong transverse discal white spot, and with three small submarginal white spots. Hind wings white, with broad brown borders, which also contain three white dots. Length of the body 5 lines; of the wings 16 lines.

b. Ceram. From Madame Ida Pfeiffer's collection.

NYCTEMERA FASCIATA.

Fœm. *Fusca; caput luteum, nigro biguttatum; palpi nigri; thorax luteo varius, albido quadrivittatus; pectus et pedes albida, illum nigro maculatum; abdomen luteum, subtus albidum, segmentis nigro fasciatis; alæ anticæ fascia recta submaculari alba, posticæ albæ fusco marginatæ.*

Female. Brown. Head pale luteous, with a black spot in front and another behind the antennæ. Proboscis tawny. Palpi black, pale at the base. Antennæ black. Lobes of the prothorax and scutellum with luteous borders. Thorax with four whitish stripes. Pectus and legs whitish, the former with black spots. Abdomen luteous above, whitish beneath; segments with black bands.

Fore wings with an exterior upright white band, which is almost macular, being interrupted by the brown veins. Hind wings white, with broad brown borders. Length of the body 6 lines; of the wings 18 lines.

a. Aneiteum, New Hebrides. Presented by the Admiralty. Voyage of H.M.S. Herald. Collected by Mr. Macgillivray.

NYCTEMERA EXTENDENS.

Mas. *Nigro-fusca; caput subtus luteum; thorax luteo varius, albido quadrivittatus; pectoris latera lutea; abdomen albo fasciatum, apice luteum; pedes ex parte albi; alæ anticæ fasciis duabus latis maculatibus albis, posticæ albæ marginibus latis nigro-fuscis.*

Male. Blackish brown. Head luteous behind and beneath. Proboscis tawny. Lobes of the prothorax and scutellum with luteous borders. Thorax with four whitish stripes. Pectus luteous on each side. Abdomen with white bands; tip luteous. Legs partly white. Fore wings with two broad abbreviated white bands, which are composed of oblong spots; first band with two spots; second with five spots, of which the fore one is lanceolate and curved, the second and the fifth are smaller than the third and the fourth, and the third is smaller than the fourth. Hind wings white, with broad blackish brown borders. Length of the body 6½ lines; of the wings 19 lines.

a. New Hebrides? Presented by the Admiralty. Voyage of H.M.S. Herald. Collected by Mr. Macgillivray.

NYCTEMERA OBTUSA.

Mas. *Obscure fusca; caput albidum, fusco bimaculatum; thorax albido quadrivittatus; pectus et pedes alba; abdomen albo fasciatum, subtus album apice luteum; alæ anticæ vitta postica basali fasciaque lata albis, posticæ albæ fusco marginatæ.*

Male. Dark brown. Head whitish, with a brown spot in front and another behind the antennæ. Proboscis tawny. Palpi brown, pale at the base. Antennæ black. Lobes of the prothorax with whitish borders. Thorax with four whitish stripes. Pectus and legs white. Abdomen with white bands; under side white, luteous at the tip. Fore wings with a broad white band, which is convex on the outer side, and is united hindward to a white stripe, which proceeds from the base of the wing. Hind wings white, with broad brown borders. Length of the body 5—6 lines; of the wings 16—18 lines.

Var. β. Fore wings with whitish streaks between the base and the white band, which is of nearly equal breadth, and is hardly convex outwardly.

a—c. Celebes. From Mädame Ida Pfeiffer's collection.

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The genera *Otroeda*, *Euschema* and *Præsos*, may be distinguished as the family *Euschemidæ*.

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OTROEDA CAFRA.

Nyctemera Cafra, *Hübn. Verz. Schmett.* 178, 1842.

OTROEDA NERINA.

Nyctemera Nerina, *Hübn. Verz. Schmett.* 178, 1843.

OTROEDA? CUNINA.

Alba; caput et thorax anticus rufescentia; antennæ nigræ, maris *late pectinatæ; abdomen flavum, segmentis basi rufis; alæ marginibus macularibus fuscis, anticarum costa, maculis basalibus strigaque obliqua media fuscis.*

Phalæna-Attacus Cunina, *Cram. Pap. Exot.* iii. 114, pl. 257, f. G.

Sierra Leone.

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EUSCHEMA HELENETTA.

Fœm. *Lutea; proboscis, palpi apice antennæque nigra; alæ vitreæ, apud marginem exteriorem fuscæ, fascia interrupta lutea; anticæ macula discali fusca, basi luteæ fascia interrupta fusca.*

Euschema Helenetta, *White, MSS.*

Female. Luteous. Proboscis; third joint of the palpi and antennæ black. Fore wings vitreous, brown for some space from the exterior border, near which there is an interrupted luteous band, luteous towards the base, near which there is an interrupted and irregular brown band; a large oblong brown discal spot. Hind

wings much like the fore wings along the exterior border, vitreous elsewhere. Length of the body 12 lines; of the wings 36 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

EUSCHEMA PLENA.

Mas. *Flava; caput nigro fasciatum; thorax nigro trifasciatus; alæ anticæ nigricantes, fasciis tribus interruptis vitreis; posticæ fasciis quinque nigricantibus.*

Male. Yellow. Head with a black band on the vertex. Antennæ black. Thorax with three black bands. Fore wings blackish, with three interrupted and incomplete vitreous bands; two yellow streaks at the base. Hind wings with five irregular blackish bands; first band almost basal; second short; third undulating; fourth macular; fifth marginal. Length of the body 10 lines; of the wings 30 lines.

a, *b*. Philippine Isles. From Mr. Cuming's collection.

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Fam. CHALCOSIIDÆ.

Uraga and *Clelia* may be added to this family.

GYNAUTOCERA PHILOMELA.

Gynautocera Philomela, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 3, f. 14.

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HISTIA FLABELLICORNIS.

g. North India. Presented by General Hearsay.

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HISTIA SELENE.

Gynautocera libelluloides, *mas.*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 2, f. 11, 12.

HISTIA VACILLANS.

Gynautocera libelluloides, *fœm.*, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 2, f. 13.

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POMPELON MARGINATA.

Heterusia acrocyanea, *De Haan*, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. f. 156, 157.

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CYCLOSIA EUPLŒOIDES.

Epyrgis Euplœoides, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 2, f. 9, 10.
Cyclosia Namouna, p. 415.

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CYCLOSIA PAPILIONARIS.

h. Madras. Presented by Mrs. Capt. Hamilton.
i, *j*. (Pupa). Madras. Presented by Mrs. Capt. Hamilton.

Page 417.

CYCLOSIA VIRGINALIS.

Milleria virginalis, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. f. 4.
Cyclosia subcyanescens, p. 417.

CYCLOSIA PIERIDOIDES.

Nigra ; caput et thorax albo guttata ; abdomen albidum, vitta dorsali nigra ; alæ albæ, venis nigro marginatis ; anticæ maculis sex atro-cyaneis, apud apices nigræ areolarum discis albis ; posticæ maculæ una atro-cyanea.

Epyrgis Pieridoides, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 1, f. 5.

Java.

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CHALCOSIA PECTINICORNIS.

Epyrgis idæoides, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 1, f. 6.

l. North India. From Dr. Hooker's collection.
m. Landoor, N. W. Himalaya. Presented by General Hearsay.

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CHALCOSIA PHALÆNARIA.

Heterusia pulchella, *Kollar*, *Kaschmir*, *von Von Hugel*, 461, 2. *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. f. 160, 161.

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CHALCOSIA MIDAMA.

Mas. Epyrgis Midama, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 2, f. 7.

Fœm. Epyrgis Hormenia, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 2, f. 8.

Chalcosia venosa, p. 422.

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CHALCOSIA CORRUSCA.

Milleria corrusca, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 1, f. 1.

Chalcosia Zuleika, p. 423.

CHALCOSIA DISTINCTA.

This species should be transferred to the genus *Eterusia*, and is nearly allied to *E. pulchella*.

CHALCOSIA ZEHMA.

Æneo-fusca; caput coccineum; abdomen album; alæ anticæ fascia albæ; posticæ albæ, basi cyaneæ, margine exteriore cyaneo-nigro.

Milleria Zehma, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 1, f. 3.

Silhet.

Page 424.

PIDORA GLAUCOPIS.

Leucopsumis glaucopis, *Hübn. Verz. Schmett.* 177, 1827.

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LAURIA CIRCE.

Milleria Circe, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. pl. 1, f. 2.
Laurion metallica, p. 426.
h. North India. From Dr. Hooker's collection.

Page 427.

LAURIA GEMINA.

i. North China. From Mr. Cuming's collection.
j. Hong Kong. Presented by Capt. Champion.

Page 428.

ETERUSIA ÆDEA.

j. Ceylon. From Mr. E. L. Layard's collection.

Page 430.

ETERUSIA SCINTILLANS.

Heterusia scintillans, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Ser.* i. f. 154, 155.
Eterusia sublutea, p. 430.

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ETERUSIA REMOTA.

b. North China. From Mr. Fortune's collection.

ETERUSIA FERREA.

b, *c*. Silhet. Presented by E. Doubleday, Esq.
d. Silhet. From the Rev. Mr. Stainforth's collection.
e. Hindostan. From Archdeacon Clerk's collection.
f. Hindostan. From Mr. Milne's collection.

ETERUSIA PULCHELLA.

f. Landoor, N. W. Himalaya. Presented by General Hearsay.
Dele Chalcosia pulchella, *Kollar, &c.*

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ETERUSIA ELIZABETHA.

b. North China. From Mr. Fortune's collection.

ETERUSIA CIRCINATA.

Cyaneo-nigra; alæ anticæ fascia obliqua flava, posticæ apice luteæ nigro maculatæ.

Heterusia circinata, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. f. 156, 157.

Assam.

Page 440.

Genus ISBARTA.

Mas. Corpus gracile. Caput subproductum. Proboscis non conspicua. Palpi brevissimi. Antennæ subfiliformes, subpectinatæ, corpore paullo breviores. Abdomen alas posticas vix superans. Pedes gracillimi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ, longiusculæ; anticæ apud costam subconvexæ, apice vix acuminatæ, margine exteriore subobliquo.

Male. Body slender. Proboscis not visible. Head very prominent in front. Palpi very short, not extending to the front of the head; third joint conical. Antennæ almost filiform, slightly pectinated, about three-fourths of the length of the body. Abdomen hardly extending beyond the hind wings. Legs very slender; hind tibiæ with two very minute apical spurs. Wings broad, rather long. Fore wings a little convex in front, hardly acuminated at the tips, slightly oblique along the exterior border; second inferior vein much nearer to the first than to the third; third full thrice further from the fourth than from the second.

1. ISBARTA GLAUCA.

Mas. *Glauca; caput et thorax cyanea, albo guttata; abdomen nigrum, segmentorum marginibus posticis ventreque albis, apice cyaneo; pedes cyanei, subtus albi; alæ nigro alboque maculatæ, anticæ apud marginem interiorem supra albidæ subtus luteæ.*

Male. Glaucous. Head and thorax dark blue, with white dots. Antennæ dark blue, with black branches. Abdomen black; hind borders of the segments and under side white; tip dark blue.

Legs dark blue, white beneath. Wings glaucous-green above, more blue beneath; disk of the areolets with black and white spots, the latter hue most prevalent beneath. Hind wings along the interior border luteous beneath and more slightly whitish above. Length of the body 8 lines; of the wings 24 lines.

a. Sumatra. From Sir Stamford Raffles' collection.

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The genera *Seripha?* and *Mevania* seem to represent the *Chalcosiidæ* in South America.

Page 444.

Fam. HYPSIDÆ.

Comprising the genera *Hypsa*, *Caryatis*, *Sermyla?* and *Pitane*. In the structure of the palpi it much resembles some groups of the *Noctuites Quadrifidæ* of Guenée.

Page 447.

HYPSA ANTICA.

Mas. *Lutea; palpi apice nigri; antennæ nigræ, sat late pectinatæ, ramis hamatis; thorace anticus nigro biguttatus; abdomen maculis dorsalibus nigris; pedes albidi; alæ anticæ ferrugineæ, triente basali luteæ, basi nigro guttatæ.*

Male. Luteous. Proboscis testaceous. Palpi with a black dot at the tip of the second joint; third joint black. Antennæ black, rather deeply pectinated; branches with hooked bristles at their tips. Thorax with a black dot on each side in front. Abdomen with black dorsal dots. Legs whitish. Fore wings ferruginous, luteous for near one-third of the surface from the base where there are some black dots; outline of the luteous part excavated, luteous and whitish in front; under side pale luteous, with broad brown borders. Hind wings dark brown, luteous in front; under side like that of the fore wings. Length of the body 9 lines; of the wings 22 lines.

Cape. In Mr. Saunders' collection.

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HYPSA MARMOREA.

Fœm. *Lutea; caput nigrum, albo fasciatum; thoracæ nigro maculatus; abdomen e guttis nigris trivittatum; pedes nigri, albo strigati; alæ cyaneo-schistaceæ, albo venosæ; posticæ apud marginem interiorem albæ, macula discali nigra.*

Female. Luteous. Head black, with white bands. Proboscis testaceous. Palpi and antennæ black, the latter simple. Thorax with several black spots. Abdomen with three rows of black dots; under side with lateral black dots. Legs black, with white streaks. Wings bluish slate-colour, with white veins. Hind wings white from the interior border to the disk; a discal black spot, in front of which there is a testaceous spot. Length of the body 12 lines; of the wings 36 lines.

a. Silhet. From Mr. Stainforth's collection.

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HYPSA SILVANDRA.

Var. Luteous. Thorax with a black dot on each side in front. Abdomen with black dorsal spots. Fore wings blackish gray, luteous and with white marks at the base, and with a white basal streak, which is connected with a white lanceolate discal spot. Hind wings white, with very broad blackish gray borders.

New South Wales. In Mr. Saunders' collection.

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HYPSA ISTHMIA.

Fœm. *Alba; palpi nigri, testaceo vittati; antennæ nigræ, subpilosæ; thorax luteo bivittatus, nigro septem maculatus; abdomen luteum, nigro quinque fasciatum, maculis subtus lateralibus nigris; alæ anticæ fuscæ, basi albæ nigro guttatæ, strigis mediis albis, maculisque duabus exterioribus albis; posticæ albæ, fusco marginatæ.*

Female. White. Proboscis testaceous. Palpi black, with testaceous stripes. Antennæ black, minutely pilose. Thorax with two pale luteous stripes, with two black spots in front, three in the middle and two behind. Abdomen luteous, with five black dorsal

bands; under side with lateral black dots. Fore wings brown, white with black dots at the base, with white streaks before the middle, and with two large white spots beyond the middle; fore spot smaller than the hind one. Hind wings white, with brown borders. Length of the body 9 lines; of the wings 28 lines.

Manilla. In Mr. Saunders' collection.

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HYPSA LANCEOLATA.

Fœm. *Fusca; caput luteum; thorax anticus luteo bimaculatus; pedes albo strigati; alæ anticæ vitta lanceolata, basi interrupta; posticæ albæ, fusco late marginatæ.*

Allied to *H. intacta*. *Female.*—Brown. Head luteous. Proboscis testaceous; first and second joints of the palpi testaceous beneath. Antennæ black, minutely setose. Thorax with a luteous spot on each side in front. Legs with white streaks. Fore wings with a brown stripe, which is interrupted at the base, and widens thence to the middle of the wing. Hind wings white, with broad brown borders. Length of the body 8 lines; of the wings 26 lines.

Celebes or Mindanao. In Mr. Saunders' collection.

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HYPSA CARICÆ.

m. Ceram. From Madame Ida Pfeiffer's collection.

Var.? Fœm. *Lutea; palpi gutta articuloque 3o nigris; thorax nigro biguttatus; abdomen e guttis nigris trivittatum; pedes albidi; alæ anticæ venis maculaque discali albis; posticæ fusco maculatæ.*

Female. Luteous. Palpi with a black dot at the tip of the second joint; third joint black. Thorax with a black dot on each side between the fore wings. Abdomen with three rows of black dots. Legs whitish. Fore wings white along the veins, and with a white discal spot. Hind wings with several irregular brown spots. Length of the body 10 lines; of the wings 30 lines.

In Mr. Saunders' collection.

HYPSA SUBRETRACTA.

Mas. *Pallidè lutea; palpi gutta basali apiceque nigris; antennæ mediocriter pectinatæ, apice nudæ; thorax nigro biguttatus; abdomen guttis transversis nigris, subtus e guttis nigris bivittatum; alæ anticæ pallidè fuscæ, basi luteæ nigro guttatæ, posticæ luteæ.*

Male. Pale luteous. Palpi black towards the tips, and with a black dot on each near the base. Antennæ black, moderately pectinated for three-fourths of the length from the base. Thorax with a black dot on each side. Abdomen with black transverse dots; under side with two lateral rows of black dots. Fore wings pale brown, pale luteous, with black dots towards the base, the luteous part angular and much narrower hindward. Hind wings pale luteous. Length of the body 8 lines; of the wings 24 lines.

a. Port Natal. From M. Gueinzius' collection.

HYPSA UNDULIFERA.

Mas. *Lutea; palpi gutta basali apiceque nigris; antennæ mediocriter pectinatæ, apice nudæ; thorax nigro triguttatus; abdomen subtus albidum e guttis nigris bivittatum; pedes albi, nigro vittati; alæ anticæ pallide fuscæ, basi luteæ nigro guttatæ; posticæ albæ, margine fuseo angulum versus interiorem attenuato undulato.*

Male. Luteous. Palpi black towards the tips, and with a black dot near the base. Antennæ black, moderately pectinated to beyond three-fourths of the length. Thorax with a black dot in the disk, and one on each side. Abdomen whitish beneath, with two lateral rows of black dots. Legs white, with black stripes. Fore wings pale brown pale luteous, with black dots towards the base, the hind part of the luteous hue less than half the length of the fore part. Hind wings white, with a brown border, which is attenuated, undulating and fringed with white towards the interior angle. Length of the body 8 lines; of the wings 24 lines.

a. ——— ? Presented by E. Doubleday, Esq.

HYPSA ANALIS.

Testaceo-flava; palpi nigri, subtus basi pallidi; antennæ nigræ, simplices; abdomen apice viride; alæ anticæ guttis duabus basalibus nigris et quinque discalibus fusco-fulvis.

Female. Testaceous-yellow. Palpi black; first and second joints pale beneath. Antennæ black, simple. Abdomen metallic green at the tip above. Fore wings with two black dots at the base, and with five brownish tawny dots in the disk. Length of the body 10 lines; of the wings 24 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

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Fam. LITHOSIIDÆ.

Contains the genera *Thirmida*, *Spiris*, *Melasina*, *Lerina*, *Apistosia*, *Antona*, *Ituna*, *Balbura*, *Ardonea*, *Atolmis*, *Asura*, *Lactura*, *Cebysa*, *Hypoprepia*, *Dianasa*, *Cissura*, *Lymire*, *Percote*, *Lithosia*, *Paidia*, *Setina*, *Eustixia*, *Eusceptis*, *Eubaphe* and *Sommeria*.

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PHÆOCHLÆNA QUADRICOLOR.

Fœm. *Lutea; caput albo bimaculatum; palpi apice fusci; antennæ nigræ; thorax nigro quadrivittatus; pedes albidi; albo anticæ ferrugineo-fuscæ, strigis basalibus testaceis fasciaque exteriore testacea apud costam lutea; posticæ luteæ, nigro marginatæ.*

Female. Luteous. Head with two black spots behind the vertex. Proboscis piceous. Palpi with brown tips. Antennæ black. Thorax with four black stripes. Legs whitish. Fore wings ferruginous-brown, with basal testaceous streaks, the hind one broader than the others; an exterior oblique testaceous band, which is abbreviated hindward, and is luteous by the costa. Hind wings luteous, with black borders. Length of the body 6 lines; of the wings 17 lines.

Parà. In Mr. Saunders' collection.

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SPIRIS GRAMMICA.

Emydia grammica, *Koch, Raup. und Schmett. Witter. Isis*, 1848, 460. *Speyer, Ent. Zeit. Stett.* xiii. 283, 2.
Euprepia grammica, *Zeller, Isis*, 1847, 432, 101. *Döring, Ent. Zeit. Stett.* ix. 304, 15.

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SPIRIS CRIBRUM.

Emydia Cribrum, *Speyer, Ent. Zeit. Stett.* xiii. 283, 1.
Euprepia Cribrum, *Döring, Ent. Zeit. Stett.* ix. 304, 12.

Var.

d. Turkey. Presented by W. K. Loftus, Esq.
e, f. Europe. From M. Becker's collection.
g. Europe. From Mr. Milne's collection.

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SPIRIS FUNEREA.

Euprepia funerea, *Eversm. Cat. Lep. Het.* 592.

SPIRIS NIGRILINEA.

Mas. *Lutea; palpi apice nigri; antennæ nigræ, mediocriter pectinatæ; pedes nigri, coxis femoribusque luteis; alæ longæ, mediocriter latæ, anticæ linea costali nigra.*

Male. Luteous. Palpi porrect, rather slender, not extending beyond the head; third joint black. Antennæ black, moderately pectinated. Legs black; coxæ and femora luteous; hind tibiæ with two minute apical spurs. Wings long, moderately broad. Fore wings with a black line along the costa. Length of the body 5 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

Genus PAGARA.

Mas. Corpus gracile. Proboscis capitis longitudine longior. Palpi graciles, acuminati, longiusculi, oblique ascendentes; articulus 3us elongatus. Antennæ sat late pectinatæ, corpore paullo breviores. Abdomen alas posticas paullo superans. Pedes graciles,

non pilosi; tibiæ posticæ calcaribus quatuor sat longis. Alæ sat angustæ; anticæ apud costam subconvexæ, apice subacuminatæ, margine exteriore subobliquo.

Male. Body slender. Proboscis somewhat longer than the breadth of the head. Palpi slender, acuminated, rather long, obliquely ascending; third joint elongated, very much shorter than the second. Antennæ rather deeply pectinated, three-fourths of the length of the body. Abdomen extending for full one-fourth of its length beyond the hind wings. Legs slender, not pilose; hind tibiæ with four moderately long spurs. Wings rather narrow. Fore wings slightly convex in front, slightly acuminated at the tips, slightly oblique along the exterior border; first and second inferior veins contiguous at the base; third more than six times further from the fourth than from the second.

1. PAGARA VENOSA.

Mas. *Lutea; palpi supra fusci; abdomen vitta dorsali fusca, basi subtusque albidum; pedes albidi, coxis anticis luteis; alæ albidæ, marginibus subfuscescentibus, venis fuscis.*

Male. Luteous. Proboscis tawny. Palpi brown above. Antennæ whitish; branches black at the base. Abdomen with a brown dorsal stripe, whitish towards the base and beneath. Legs whitish; fore coxæ luteous. Wings whitish; very slightly tinged with brown towards the borders; veins brown, whitish towards the base in the hind wings. Length of the body 4 lines; of the wings 12 lines.

Brazil. In Mr. Saunders' collection.

2. PAGARA SIMPLEX.

Mas. *Albido-cinerea; palpi nigri, porrecti, acuminati, caput superantes; prothorax pallide luteus; abdomen testaceum, maculis dorsalibus fuscis; alæ subvestitæ.*

Male. Whitish cinereous. Palpi and antennæ black, the former porrect, acuminated, extending some distance beyond the head. Prothorax pale luteous. Abdomen testaceous, with brown dorsal spots. Wings very thinly clothed. Length of the body 3½ lines; of the wings 10 lines.

a. ——— ? From Mr. Milne's collection.

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MELASINA CILIARIS.

Bombyx lugubris, *Hübn. Bomb.* pl. 51, f. 216.
Eyprepia ciliaris, *Ochs. Schmett.* iii. 350, 26.
Coracia lugubris, *Hübn. Verz. Schmett.* 168, 1738.
Coracia ciliaris, *Hübn. Verz. Schmett.* 168, 1739.

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ARDONEA MUNDA.

Cyanea; caput et prothorax coccinea; palpi coccinei, apice nigri; abdomen alas posticas triente superans; alæ mediocriter latæ, ciliis albis nigro interruptis.

Female. Deep blue. Head, and fore border of the thorax and of the pectus crimson. Palpi crimson, with black tips. Proboscis piceous. Antennæ black. Abdomen extending for about one-third of its length beyond the hind wings. Wings moderately broad; fringe white, with a black interval on the middle of the exterior border of each wing, and another towards the interior angle of the hind wings. Length of the body 4 lines; of the wings 12 lines.

a. St. Domingo. From Mr. Tweedie's collection.

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HYPOPREPIA DELINEATA.

Ammatho figuratus, p. 759.

Page 488.

HYPOPREPIA LANCEOLATA.

Fœm. *Pallide flava; caput nigro unigutlatum; thorax vitta maculisque duabus anticis rufis, guttis quatuor nigris vittisque quatuor rufis posterioribus; alæ anticæ basi fusco biguttatæ, fasciis tribus angulatis guttularibus fuscis, strigis lanceolatis rufis; posticæ marginibus latis diffusis rufescentibus.*

Female. Pale yellow. Head with a black dot between the antennæ. Thorax with a red stripe and two red bands in front, and with four black dots and four red stripes in the middle. Fore wings with two brown dots at the base, with three angular bands of brown dots, and with red lanceolate streaks in the disks of the areolets. Hind wings with broad diffuse reddish borders. Length of the body 5 lines; of the wings 14 lines.

China. In Mr. Saunders' collection.

HYPOPREPIA ZICZAC.

Fœm. *Alba; caput fusco uniguttatum; antennæ testaceæ; thorax anticus fascia interrupta rosea; alæ anticæ roseo marginatæ, fusco trifasciatæ, fascia 3a angulosa perobliqua, guttis exterioribus fuscis; posticæ pallide roseæ.*

Female. White. Head with a brown dot between the eyes. Proboscis tawny. Antennæ testaceous. Thorax with an interrupted rosy band in front. Fore wings rosy along most of the borders, with three very slender brown bands; first and second bands almost straight and upright; third exterior, extremely oblique and zigzag, and accompanied by brown dots. Hind wings pale rose-colour. Length of the body 4 lines; of the wings 12 lines.

China. In Mr. Saunders' collection.

Page 490.

Genus APYRE.

May be transferred to the *Zygænidæ*, being nearly allied to the genus *Automolis*.

Page 491.

Genus MELESE.

Belongs to the *Arctiidæ*.

Page 494.

LITHOSIA GIGAS.

Var. Fœm. *Nigricans; caput, prothorax, thoracis vittæ duæ, pectus, necnon abdomen apice subtusque lutea; abdominis latera albo maculata; alæ anticæ macula basali nigra, posticæ basi albidæ.*

Var. Female. Blackish. Head, prothorax, two stripes on the thorax, and pectus luteous. Abdomen luteous at the tip and beneath, and with a row of white spots along each side. Fore wings with a black dot on each at the base. Hind wings whitish towards the base, and especially so beneath.

In Mr. Saunders' collection.

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LITHOSIA BIVITTA.

Fœm. *Albida; palpi apice nigri; antennæ apice nigræ; thorax viridi bimaculatus aut bivittatus; pedes ex parte virides; alæ anticæ viridi bivittatæ, nonnunquam cervino-albidæ viridi tristrigatæ.*

Female. Whitish. Proboscis tawny. Palpi with black tips. Antennæ black. Thorax with a green spot on each side by the fore wing. Legs partly green. Fore wings with two green stripes, which extend nearly to the tips. Length of the body 7—8 lines; of the wings 22—26 lines.

Hindostan. In Mr. Saunders' collection.

Var. Thorax with a green stripe along each side. Fore wings partly very pale fawn-colour; fore green stripe very narrow. Hind stripe dislocated, and with two interruptions.

Hindostan. In Mr. Saunders' collection.

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LITHOSIA REPLANA.

Var. Blackish gray. Head luteous, with a black band. Thorax luteous in front. Fore wings white along the costa. Abdomen and legs whitish. Hind wings pale luteous.

Van Dieman's Land. In Mr. Saunders' collection.

LITHOSIA ALBICANS.

Fœm. *Albicans; antennæ nigræ; alæ latiusculæ.*

Female. Whitish. Proboscis ferruginous. Antennæ black. Wings whitish, rather broad. Length of the body 5 lines; of the wings 16 lines.

——? In Mr. Saunders' collection.

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LITHOSIA BICOLORA.

j. Tasmania. Presented by Morton Allport, Esq.

LITHOSIA LATICINCTA.

Mas. *Nigra; thorax rufus, postice nigricans; abdomen apice fasciculatum, disco subtus rufo; alæ anticæ rufæ, marginibus apices versus nigris; posticæ luteæ, marginibus latissimis nigris.*

Male. Black. Proboscis ferruginous. Antennæ rather stout. Thorax red, blackish hindward. Abdomen tufted at the tip; disk beneath red. Fore wings red from the base to beyond the middle, with a red discal stripe from thence nearly to the tips. Hind wings luteous, with very broad black borders; luteous part with notch near the interior border. Length of the body 4 lines; of the wings 13 lines.

a. Ceram. From Madame Ida Pfeiffer's collection.

Page 523.

The genera *Cydosia*, *Areva*, *Atteva*, *Mieza*, *Doliche* and *Eutane*, appear to connect the *Lithosiidæ* with the *Tineites*.

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CYDOSIA NOBILITELLA.

i. ——? Presented by E. Doubleday, Esq.
j. Vera Cruz. From M. Sallé's collection.
k. St. Domingo. From Mr. Hearne's collection.
l, m. St. Domingo. From Mr. Tweedie's collection.
n. Honduras. From Mr. Dyson's collection.

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ÆMENE TAPROBANIS.

c, d. Ceylon. Presented by R. Templeton, Esq.
e. North India. From Mr. James' collection.

The black marks of the fore wings are variable in form, size and position.

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Fam. CALLIMORPHIDÆ.

The genera *Bizone*, *Costulo*, *Ruscino*, *Eudesmia* and *Deiopeia*, may be associated in one family with the above name.

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BIZONE FASCICULATA.

Mas. *Candida; palpi nigricantes; antennæ testaceæ, thorax anticus rufo fasciatus; abdomen testaceum, apice album; alæ anticæ rufo bifasciatæ, apud costam fasciculatæ subtus incrassatæ, guttis duabus anticis nigro-fuscis.*

Male. Pure white. Proboscis and antennæ testaceous, the latter minutely setose. Palpi blackish, except towards the base. Thorax with a red band in front. Abdomen testaceous, with a white tip. Fore wings incrassated in front beneath, and with a tuft along the costa between two slender red bands; first band prolonged on the costa to the base of the wing; second more curved than the first; two blackish brown spots in front between them. Length of the body 6 lines; of the wings 16 lines.

Hindostan. In Mr. Saunders' collection.

BIZONE BIANCA.

Mas. *Alba; palpi testacei; thorax fascia media maculaque postica rufis; abdomen supra subrufescens; pedes ex parte rufescentes; alæ anticæ fasciis quatuor rufis guttisque tribus anticis nigris; posticæ rufæ, costa ciliisque albis.*

Male. White. Proboscis and palpi testaceous. Thorax with a red band in the middle, and a red spot behind. Abdomen slightly reddish above. Legs partly reddish. Fore wings with four red bands; first band nearly basal; fourth apical; second and third bordered with black, the former on the inner side, the latter on the outer side; three black dots in front between the second and third bands. Hind wings red, whitish in front and with white ciliæ. Length of the body 4 lines; of the wings 12 lines.

Hindostan. In Mr. Saunders' collection.

Page 554.

The genera *Ameria*, *Myrice*, *Asiona*, *Soloe*, *Secusio* and *Petovia*, much resemble the *Geometrites*.

MITTOCHISTA STRAMINEA.

Fœm. *Albida; palpi et pedes pallide testacei; alæ anticæ pallide testaceæ, guttis basalibus et exterioribus unaque discali necnon fasciis tribus fuscis.*

Female. Whitish. Proboscis, palpi, antennæ and legs pale testaceous. Fore wings very pale straw-colour; some brown dots near the base, one in the disk, and two rows of brown dots along the exterior border; three slender pale brown bands; third extremely zigzag. Length of the body 3½ lines; of the wings 12 lines.

Hindostan. In Mr. Saunders' collection.

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SECUSIO? PHEDONIA.

Testacea; alæ anticæ pallide cervinæ, maculis tribus albis nigrocinctis, duabus exterioribus conjunctis.

Bombyx Phedonia, *Cram. Pap. Exot.* iv. 110, pl. 347, f. C.
Ophthalmis Phedonia, *Hübn. Verz. Schmett.* 166, 1718.

Cape.

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PETOVIA DICHROARIA.

(Geometra) dichroaria, *Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. f. 189.

Petovia marginata, p. 560.

d. Port Natal. From M. Gueinzius' collection.

Page 568.

DEIOPEIA VENUSTA.

c. Sumatra. From Sir Stamford Raffles' collection.

DEIOPEIA SPECIOSA.

d. St. Domingo. From Mr. Tweedie's collection.

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DEIOPEIA ARGUS.

e. North India (Sikkim, Himalaya). From Dr. Hooker's collection.

Genus SIDYMA.

Mas. Corpus sat gracile. Proboscis thoracè longior. Palpi validi, ascendentes, verticem non attingentes; articulus 3us minutus, conicus. Antennæ mediocriter pectinatæ, thorace longiores. Abdomen alas posticas non superans. Pedes sat graciles; tibiæ posticæ calcaribus quatuor longis. Alæ latiusculæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Apparently allied to the *Geometrites*. *Male.*—Body rather slender. Proboscis longer than the thorax. Palpi stout, ascending, not so high as the vertex; third joint minute, conical, about one-third of the length of the second. Antennæ moderately pectinated, longer than the thorax. Abdomen extending as far as the hind wings. Legs rather slender; fore tibiæ with an appendage beneath; hind tibiæ with four long spurs. Wings rather broad. Fore wings straight in front, rounded at the tips, moderately oblique along the exterior border; first and second inferior veins contiguous at the base; third about thrice further from the fourth than from the second.

1. SIDYMA ALBIFINIS.

Mas. *Pallidissime cervina; palpi apice nigri; prothorax, pectus, coxæ femoraque basi lutea; abdomen apice subluteum; alæ apice albæ.*

Male. Very pale fawn-colour. Proboscis tawny. Palpi with black tips. Antennæ with brown branches. Prothorax, pectus, coxæ and femora towards the base luteous. Abdomen slightly luteous at the tip. Wings with white tips. Length of the body 7 lines; of the wings 18 lines.

Hindostan. In Mr. Saunders' collection.

Genus CADYANDA.

Mas. Corpus gracile. Proboscis mediocriter longa. Palpi breves, graciles, lanceolati, ascendentes; articulus 3us minutus, acuminatus. Antennæ subpectinatæ, corporis dimidio multo longiores. Pedes graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore mediocriter obliquo.

Apparently related to the *Geometrites*. *Male.*—Body slender. Proboscis moderately long. Palpi short, slender, lanceolate, ascending; third joint minute, acuminated. Antennæ minutely pectinated, very much more than half the length of the body. Abdomen not extending so far as the hind wings. Legs slender; hind tibiæ with four moderately long spurs. Wings broad. Fore wings straight in front, slightly acuminated at the tips, moderately oblique along the exterior border; second inferior vein full six times further from the third than from the first.

CADYANDA LUGENS.

Mas. *Nigricans; caput supra luteum, antice testaceum; abdomen guttis lateralibus albis, apice luteum; pedes fusci; alæ maculis discalibus fasciaque exteriore guttulari obliqua albidis.*

Male. Blackish. Head luteous above, testaceous in front. Proboscis testaceous. Abdomen with a row of white dots on each side; tip luteous. Legs brown. Wings with some whitish discal spots, and with an oblique exterior band of whitish dots, which are most distinct in the hind wings. Length of the body 7 lines; of the wings 19 lines.

———? In Mr. Saunders' collection.

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CASTULO PLAGIATA.

i, j. Van Dieman's Land. Presented by Morton Allport, Esq.
k. Van Dieman's Land. From Mr. A. J. Smith's collection.

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Genus SIOSTA.

Antennæ serratæ. Alæ anticæ excisuris duabus apud marginem exteriorem.

1. Siosta bifasciata.

Alæ nigræ, virescenti cæruleo mutabilique micantes, anticæ fascia transversa coccinea.

Callimorpha bifasciata, *Latr. Humb. Voy.* ii. 132, 157, pl. 43, f. 7, 8.

Body black. Antennæ serrated. Fore wings with two concave indentations on the exterior border.

South America.

Page 581.

Genus ERITHALES.

Lingua distincta. Palpi cylindracei, extra caput producti, articulo 3o oviformi. Antennæ *maris* valde pectinatæ. Alæ omnes abdomen tegentes.

Erithales, *Poey, Cent. Lép. Cuba.*

1. Erithales Guacolda.

Alæ fuscæ; anticæ partim dilutiores, punctis plurimis nigris; abdomen fulvum; corpus et pedes nigro punctata.

Erithales Guacolda, *Poey, Cent. Lép. Cuba.*

Cuba.

Genus GONODONTA.

Corpus sat gracile. Antennæ graciles. Abdomen alas posticas non superans. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore sat obliquo, angulo interiore producto acuto.

Gonodonta, *Hübn. Verz. Schmett.* 263.

1. Gonodonta Lincus.

Subcinerea; abdomen luteum; alæ anticæ nigræ, postica angulatæ, apices versus testaceæ fascia lineari obliqua alba; posticæ nigro late submarginatæ.

Phalæna-Bombyx Lincus, *Cram. Pap. Exot.* i. 79, pl. 50, f. H.

Gonodonta Lincus, *Hübn. Verz. Schmett.* 263, 2586.

Surinam.

Genus TERMESSA.

Mas et fœm. Corpus gracile. Proboscis capitis latitudine paullo longior. Palpi ascendentes; articulus 3us longi-conicus. Antennæ graciles, corporis dimidio multo longiores, *maris* subsetosæ, *fœminæ* vix setosæ. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam vix convexæ, apice subrotundatæ, margine exteriore subobliquo; posticæ abdomen superantes.

Body slender. Proboscis rather longer than the breadth of the head. Palpi ascending; third joint elongate-conical, about one-third of the length of the second. Antennæ slender, much more than half the length of the body, minutely setose in the male, hardly setose in the female. Abdomen not extending so far as the hind wings. Legs slender; hind tibiæ with four long spurs. Wings broad. Fore wings very slightly convex in front, somewhat rounded at the tips, slightly oblique along the exterior border; second inferior vein nearly as far from the first as from the third; third about four times further from the fourth than from the second.

1. TERMESSA LÆTA.

Mas et fœm. *Lutea; palpi nigri; alæ anticæ albidæ, fasciis quatuor nigro-fuscis, posticæ nigro-fusco bimaculatæ.* Mas.—*Thorax nigro-fuscus, albido bivittatus.* Fœm.—*Thorax albidus, fascia antica nigro-fusca; alæ posticæ macula apud marginem interiorem nigro-fusca.*

Male and female. Luteous. Proboscis tawny. Palpi and antennæ black. Anterior legs partly black. Fore wings mostly whitish, with four dark brown bands; first band basal; second and third slightly zigzag; fourth apical. Hind wings with two dark brown spots; one near the interior angle, larger than the other which is near the tip of the costa. *Male.*—Thorax blackish brown, with two whitish stripes. Third and fourth bands of the fore wings connected by three or four streaks. *Female.*—Thorax whitish, with a blackish brown band in front. Bands of the fore wings narrower than in the male; first and fourth bands abbreviated hindward; fourth separate from the third, or united to it by a single streak. Hind wings with a blackish brown spot on the interior border. Length of the body 4—5 lines; of the wings 12—14 lines.

a, *b*. Tasmania. Presented by — Walcott, Esq.
c. Sydney. Presented by E. Doubleday, Esq.
d. Sydney. From Mr. Lambert's collection.

Genus LEMYRA.

Fœm. Corpus vix robustum. Proboscis distincta, brevissima. Palpi porrecti, lanceolati, caput perpaullo superantes; articulus 3us minutus, acutus. Antennæ subpectinatæ, corporis dimidio longiores. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ angustæ, longissimæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore perobliquo.

Female. Body hardly stout. Proboscis distinct, very short. Palpi porrect, lanceolate, extending very little beyond the head; third joint minute, acute. Antennæ minutely pectinated, more than half the length of the body. Abdomen extending as far as the hind wings. Legs stout; hind tibiæ with two minute apical spurs. Wings narrow, very long. Fore wings hardly convex in front, rounded at the tips, extremely oblique along the exterior border; first and second inferior veins contiguous at the base; third near the second; fourth very remote.

LEMYRA EXTENSA.

Fœm. *Lutea; vertex nigro maculatus; palpi et antennæ nigra; thorax maculis duabus anticis vittisque duabus lateralibus nigris; abdomen e guttis nigris trivittatum; pedes ex parte nigri; alæ nigro marginatæ, anticæ strigis basalibus fasciisque duabus angulatis nigris, posticæ gutta discali nigra.*

Female. Luteous. Head with a black spot on the vertex. Palpi and antennæ black. Thorax with two black spots in front, and with two lateral stripes. Abdomen with three rows of black dots. Legs partly black. Wings with black borders. Fore wings with black basal streaks, and with two black angular bands; second band connected by two streaks with the black border. Hind wings with a black discal dot. Length of the body 4 lines; of the wings 1⅚ lines.

a. Celebes. From Madame Ida Pfeiffer's collection.

Genus GEODENA.

Mas. Corpus gracillimum. Proboscis capitis latitudine multo longior. Palpi graciles, porrecti, caput non superantes; articulus 3us minutus, conicus, acuminatus. Antennæ late pectinatæ, corporis dimidio multo longiores. Abdomen alas posticas non superans. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ longiusculæ, mediocriter latæ; anticæ vix acuminatæ, apud costam subconvexæ, margine exteriore perobliquo.

Male. Body very slender. Proboscis much longer than the head. Palpi slender, porrect, not extending beyond the head; third joint minute, conical, acuminated. Antennæ deeply pectinated, much more than half the length of the body. Abdomen extending as far as the hind wings. Legs slender; hind tibiæ with four long spurs. Wings rather long, moderately broad. Fore wings very slightly convex in front, hardly acuminated at the tips, very oblique along the exterior border; second inferior vein rather further from the third than from the first; third full six times further from the fourth than from the second. *G. marginalis* differs from the typical species, *G. quadrigutta*, in the structure of the palpi, which are obliquely ascending, and with the third joint obtuse and very minute.

1. GEODENA QUADRIGUTTA.

Mas. *Alba; caput subluteum, fascia antica nigro-fusca; thorax anticus subluteus; palpi testacei, apice nigri; pedes nigro vittati; abdomen albido-testaceum; alæ nigro quadriguttatæ.*

Male. White. Head and fore part of the thorax slightly luteous. Head with a blackish brown band in front. Proboscis tawny. Palpi testaceous, with black tips. Antennæ black. Abdomen whitish testaceous. Legs with blackish stripes. Wings with a black dot at the tip of the discal areolet; costa of the fore wings black; hind wings with a smaller dot than that of the fore wings. Length of the body 4 lines; of the wings 13 lines.

a. ———? From Mr. Milne's collection.

2. GEODENA MARGINALIS.

Mas. *Alba; caput pallide luteum; proboscis nigra; palpi supra fusci; thorax fascia antica lutea; alæ nigro-fusco quadriguttatæ, margine exteriore pallide fusco; anticæ apud costam pallide fuscæ.*

Male. White. Head pale luteous. Proboscis black. Palpi brown above. Thorax with a luteous band in front. Wings with a dark brown discal dot, and with a pale brown exterior border. Fore wings pale brown along the costa, and with the discal dot larger than in the hind wings, and the brown border much broader. Length of the body 5 lines; of the wings 16 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.

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Genus TRICHOSOMA.

Ocnogyna, *Lederer, Verhandl. Zool. Botan. Vereins zu Wien.* ii. &c.

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TRICHOSOMA BOETICUM.

c. South Spain. From M. Becker's collection.

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ARCTIA ISABELLA.

Connects *Arctia* with *Spilosoma.*

a, b. Trenton Falls, New York. Presented by E. Doubleday, Esq.
c. Nova Scotia. From Lieut. Redman's collection.
d. ——— ?

ARCTIA GELIDA.

a, b. Winter Cove and Cambridge Bay, Arctic America. Presented by Capt. Collinson, R. N., H.M.S. Enterprise.

ARCTIA HYPERBOREA.

Var. ? Body brown, reddish beneath and at the tip of the abdomen. Thorax with a whitish band in front. Fore wings with two basal and four costal irregular whitish spots, the third and fourth costal spots forming parts of two interrupted whitish bands.

a—d. (*d.* larva). Winter Cove and Cambridge Bay, Arctic America. Presented by Capt. Collinson, R.N., H.M.S. Enterprise.

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Genus BRACCA.

1. BRACCA BAJULARIA.

Bracca bajularia, *Hübn. Verz. Schmett.* 179, 1849.
Arctia? bajularia, p. 615.

Page 616.

Genus PERICALLIA.

Pleretes, *Lederer, Verhandl. Zool. Botan. Vereins zu Wien.* ii. &c.

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DARITIS MARGINALIS.

Mas. *Nigro-fusca; thorax fascia interrupta flava; abdomen rufum, nigro trivittatum, subtus flavum; pedes flavo strigati; alæ anticæ gutta basali rufa, fascia latissima vitrea maculaque magna subquadrata nigro-fusca, guttis submarginalibus semihyalinis; posticæ vitreæ, marginibus nigro-fuscis rufo vitreoque variis.*

Male. Blackish brown. Thorax with a bright yellow band, which is dilated on each side and widely interrupted in the middle. Abdomen red, with one dorsal and two lateral black stripes; under side yellow. Legs with yellow streaks. Fore wings with a red basal and costal dot, and beyond the middle with a very broad vitreous band, which is dilated in front, and there contains a large blackish brown subquadrate spot; disk towards the base semihyaline; exterior border with a row of semihyaline dots; these are most apparent on the under side, where the subapical part is red. Hind wings vitreous, with blackish brown borders, the latter are interruptedly interlined with red, and contain also a row of vitreous dots; a blackish brown streak across the tip of the discal areolet. Length of the body 11 lines; of the wings 31 lines.

This species is closely allied to some species of *Pericopis*, and thus connects the *Arctiidæ* with the *Pericopidæ*.

Santa Fé de Bogotà. In Mr. Saunders' collection.

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AMMALO? CRUENTUS.

Fuscus, subtus rufescens; antennæ corpore paullo breviores; abdomen rufum; alæ subangulatæ, anticæ maculis rufescentibus, gutta discali albida; posticæ roseo albæ.

Phalæna-Bombyx cruenta, *Anon. Ins. Surin.* 169, pl. 73.

Surinam.

AMMALO? LEUCOSTIGMA.

Fusco-cinereus; caput et abdomen rufa; thorax rufo trimaculatus; pedes rufi; alæ anticæ gutta discali alba, fasciis tribus rufis, 3a marginali; posticæ albidæ.

Phalæna-Bombyx leucostigma, *Anon. Ins. Surin.* 247, pl. 112.

Surinam.

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PHRAGMATOBIA? MYCALIA.

Ferruginea; alæ nigricantes, linea marginali ferruginea; anticæ fasciis duabus obliquis antice approximatis postice linea marginali connexis ferrugineis.

Phalæna-Bombyx Mycalia, *Stoll, Cram. Pap. Exot.* 158, pl. 35, f. 4, pl. 21, f. 5, H, (larva).

Surinam.

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SPILOSOMA LINEATUM.

d. Port Natal. From M. Gueinzius' collection.

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SPILOSOMA 4-RAMOSUM.

The branches of the discal stripe vary in number from one to three.

a. North India. From Capt. Reid's collection.

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SPILOSOMA METARHODA.

Fœm. *Album; palpi rosei; apice nigri; abdomen supra roseum, maculis dorsalibus nigris, subtus e guttis nigris bivittatum; pedes rufo strigati, ex parte nigri; alæ anticæ albido-cervinæ, guttis paucis nigris; posticæ roseæ.*

Female. White. Palpi rose-colour, with black tips. Antennæ black. Abdomen above rosy red, with black dorsal spots; under side with two rows of black dots along each side. Legs streaked with red, partly black. Fore wings whitish fawn-colour, with a black dot at the base, with another on the discal areolet, with two by the interior border, and with one near the interior border and at a short distance from the base; under side rosy red, as are also the hind wings, which have a black discal dot beneath. Length of the body 7 lines; of the wings 20 lines.

Manilla. In Mr. Saunders' collection.

SPILOSOMA CURVATUM.

Alæ testaceæ; anticæ fasciola curvata punctisque nigris; posticæ basi roseæ nigroque bifasciatæ.

Bombyx curvata, *Donov. Epit. Ins. New Holl.* pl.
Spilosoma curvata, *Boisd. Voy. de l'Astrolabe*, Pt. 1. *Lep.* 222, 3.

New Holland.

SPILOSOMA? BEGGA.

Album; pedes lutei, tarsis nigris; alæ anticæ costa nigra.

Phalæna-Bombyx Begga, *Cram. Pap. Exot.* iv. 125, pl. 355, f. E. *Stoll, Suppl.* pl. 19, f. 3, 3 E. *Anon. Ins. Surinam*, 59, pl. 29, 6.

Laria Begga, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Leucomæ Albæ*), 159, 1658.

Surinam.

SPILOSOMA? ZATIMA.

Testaceum; caput et thorax anticus nigra; abdomen nigrum, basi apiceque testaceum; alæ testaceo venosæ et ciliatæ, anticæ vitta discali testacea.

Phalæna Zatima, *Cram. Pap. Exot.* iv. 182, pl. 381, f. F.
Olistheria Zatima, *Hübn. Verz. Schmett.* 194, 1987.
Surinam.

SPILOSOMA OBSCURUM.

Fœm. *Fuscum; palpi apice nigri; abdomen rufescens, maculis lateralibus nigris; pedes pallidi, femoribus apice nigris, anticis rufis, tarsis anticis nigro fasciatis; alæ testaceæ, anticæ fasciis tribus diffusis punctisque fuscis, subtus apud costam basalem rufescentes gutta subcostali nigra; posticæ gutta discali nigra, basi rufescentes.*

Female. Brown. Palpi with black tips. Antennæ testaceous. Abdomen reddish, paler beneath, with black spots along each side. Legs pale; femora with black tips; fore femora red; fore tarsi with black bands. Wings testaceous. Fore wings flecked with brown, traversed by three diffuse and incomplete dark brown bands; under side red along the costa towards the base, with a black subcostal dot. Hind wing with a black discal dot, reddish towards the base. Length of the body 6 lines; of the wings 18 lines.

a. South Africa. From Mr. Argent's collection.

SPILOSOMA? MACULOSUM.

Album; caput et thorax nigro guttata; abdomen luteum, maculis dorsalibus nigris; alæ anticæ ocellis plurimis nigris; posticæ macula postica nigra.

Phalæna-Bombyx maculosa, *Cram. Pap. Exot.* iv. 156, pl. 370, f. B.
Ecpantheria assimilis, *Hübn. Verz. Schmett.* 183, 1890.
Sierra Leone.

SPILOSOMA PUNCTARIUM.

Album; abdomen rufum, maculis dorsalibus nigris; alæ anticæ maculis plurimis basalibus et costalibus nigris, posticæ maculis quatuor discalibus nigris.

Phalæna-Bombyx punctaria, *Cram. Pap. Exot.* iv. 233, pl. 398, f. D.
Japan.

SPILOSOMA? NICETA.

Pallide cervinum; abdomen rufum; alæ anticæ maculis tribus posticis unaque antica nigris; posticæ rufæ, macula arcuata discali nigra.

Phalæna-Bombyx Niceta, *Cram. Pap. Exot.* iv. 151, pl. 368, f. C.

Amboina.

SPILOSOMA MUTANS.

Mas. *Album; palpi nigri; tibiæ, tarsique ex parte nigra; coxæ femoraque antica lutea; alæ anticæ fasciis tribus guttularibus nigricantibus.*

Male. White. Palpi and antennæ black. Tibiæ and tarsi mostly black. Fore femora and fore coxæ luteous. Fore wings with three imperfect bands of blackish dots, which vary much in number. Length of the body 5 lines; of the wings 14 lines.

——— ? In Mr. Saunders' collection.

SPILOSOMA SUBOCELLATUM.

Fœm. *Album; caput antice nigrum, subtus rufum; thoracæ nigro trivittatus; abdomen e mavulis nigris trivittatum, supra rufum; pedes ex parte nigri, coxis femoribusque anticis rufis; alæ anticæ maculis tribus costalibus nigro-fuscis fasciisque quatuor obliquis diffusis pallide fuscis, fascia 3a antice subocellari; posticæ macula antica fasciaque submarginali pallide fuscis.*

Female. White. Head black in front, red beneath. Palpi and antennæ black. Thorax with three black stripes, the lateral pair abbreviated hindward, the dorsal one in front. Abdomen red above, with three rows of black spots above and beneath. Legs partly black; fore coxæ and fore femora mostly red. Fore wings with three dark brown costal spots, and with four oblique irregular pale brown bands; third forming a ringlet in front. Hind wings with a pale brown spot in front, and with a pale brown submarginal band. Length of the body 8 lines; of the wings 24 lines.

a. Australia. From Mr. Stevens' collection.

SPILOSOMA CONSPURCATUM.

Mas. *Album, ex parte subtestacea; capitis latera subtus palpique nigra; thorax fusco quadrimaculatus; abdomen luteum; alæ anticæ gutta basali nigro-fusca; fasciis duabus latis obliquis guttisque nonnullis pallide fuscis; posticæ fascia lata interrupta submarginali guttaque discali pallide fuscis.*

Male. White, slightly and partly tinged with testaceous. Head on each side beneath and palpi black. Antennæ brownish. Thorax with two dorsal brown spots in front, and with four lateral brown spots. Abdomen luteous. Fore wings with a dark brown basal dot, and with two pale brown broad irregular oblique bands, which are accompanied by some pale brown dots. Hind wings with a pale brown much interrupted submarginal band, and with a discal dot of the same hue. Length of the body 5 lines; of the wings 13 lines.

a. Java. From the East India Company's collection.

Genus ISIA.

Mas et fœm. Corpus vix robustum. Proboscis brevissima. Palpi breves, porrecti, caput non superantes; articulus 3us minutus, conicus. Antennæ simplices, subsetosæ, thorace multo longiores. Abdomen alas posticas non superans. Pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ latiusculæ, apud costam subconvexæ, apice rotundatæ, margine exteriore sat obliquo.

Body hardly stout. Proboscis very short. Palpi short, porrect, not extending beyond the head; third joint minute, conical. Antennæ simple and minutely setose in both sexes, much longer than the thorax. Abdomen not extending beyond the hind wings. Legs rather slender; hind tibiæ with four moderately long spurs. Wings rather broad. Fore wings hardly convex in front, slightly rounded at the tips, moderately oblique along the exterior border; first, second and third inferior veins almost contiguous at the base; fourth remote.

1. ISIA INTRICATA.

Mas et fœm. *Albida; caput supra luteum; palpi nigri; abdomen luteum, maculis dorsalibus nigris; tibiæ basi tarsique nigra; alæ anticæ fasciis quatuor obliquis fuscis, 1a 3a 4aque interruptis, 1a duplicata, 2a lata, venis luteis; posticæ subluteæ, fasciis duabus interruptis aut subobsoletis fuscis.*

Male and female. Whitish. Head luteous above. Palpi and antennæ black. Abdomen luteous, with dorsal black spots. Tibiæ towards the base and tarsi black. Fore wings with four oblique brown bands, and with luteous veins; first and third bands very slender, interrupted, first double; second broad; fourth interrupted and composed of streaks along the veins. Hind wings with a slight luteous tinge, and with two oblique brown bands, which are interrupted in the female, and are partly or almost wholly obsolete in the male. Length of the body 5—6 lines; of the wings 16—18 lines.

Brazil. In Mr. Saunders' collection.

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CYCNIA TENERA.

Alba; abdomen supra testaceum, vitta dorsali e guttis nigris; alæ ad costam testaceæ.

Cycnia tenera, (*Phalæna Vera Hypercompa pallida*), *Hübn. Samml. Exot. Schmett.* i. 7, 2, f. 3, 4.

Georgia. Florida.

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Genus DINARA.

Corpus sat robustum. Proboscis brevis. Palpi breves, caput non adæquantes; articulus 3us minimus. Antennæ thorace longiores. Abdomen longiusculum, alas posticas triente superans. Pedes sat validi; tibiæ posticæ calcaribus quatuor longis. Alæ latiusculæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore sat obliquo subundulato.

Body moderately stout. Proboscis short. Palpi short, not extending so far as the head; third joint very small. Antennæ longer than the thorax. Abdomen rather long, extending for one-third of its length beyond the hind wings. Legs moderately stout; hind tibiæ with four long spurs. Wings somewhat broad. Fore wings straight in front, acuminated at the tips, rather oblique and indistinctly undulating, and denticulated along the exterior border; first and second inferior veins contiguous at the base; third very remote. *Male.*—Antennæ moderately pectinated, much longer than those of the female. *Female.*—Antennæ serrated.

This genus is nearly allied to *Antheua*, and the Synopsis, p. 586, will include it with *Ardices*, from which it is distinguished by the greater length of the abdomen and by the denticulated fore wings.

1. DINARA LINEOLATA.

Albida; caput antice subtusque fulvum; abdomen supra luteum, guttis lateralibus nigris; alæ anticæ apud costam fuscescentes, striga discali, margine exteriore cinereo, interiore subtestaceo; posticæ marginibus fusco subconspersis.

Whitish. Head in front and beneath and palpi tawny. Antennæ testaceous. Abdomen luteous above, except towards the tip; a row of black dots along each side. Fore wings with an indistinct testaceous tinge towards the interior border, shaded with pale brown along the costa, and with darker gray along the exterior border; a slender hardly curved brown discal streak. Hind wings slightly powdered with brown towards the borders. Length of the body 10 lines; of the wings 20—22 lines.

Hindostan. In Mr. Saunders' collection.

Genus ZANA.

Fœm. Corpus robustum. Proboscis non conspicua. Palpi brevissimi, caput non adæquantes. Antennæ serratæ, sat validæ. Abdomen alas posticas triente superans. Pedes validi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ; anticæ apud costam rectæ, apice subacuminatæ, margine exteriore denticulato sat obliquo.

Female. Body stout. Proboscis not visible. Palpi very short, not extending so far as the head. Antennæ serrated, rather stout, much longer than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Legs stout; hind tibiæ with four spurs of moderate length. Wings rather long, moderately broad. Fore wings straight in front, slightly acuminated at the tips, denticulated and rather oblique along the exterior border; second inferior vein full eight times further from the third than from the first. Allied to *Anthena*.

ZANA LIGNOSA.

Fœm. *Sordide albida; abdomen supra luteum maculis lateralibus nigris, subtus fusco vittatum; alæ anticæ striga basali fusca strigisque angulosis nigris discalibus et marginalibus.*

Female. Dingy whitish. Antennæ blackish. Abdomen luteous above, with a row of black spots along each side; under

side with a brown stripe, which does not extend to the base. Fore wings with a brown basal streak, with some very acutely angular black streaks in the disk, and with a row of the same along the exterior border, towards which they are slightly brownish. Length of the body 9 lines; of the wings 21 lines.

a. North India. From Capt. Boys' collection.

Genus PITHEA.

Mas. Corpus robustum. Caput, thorax et pedes pilosissima. Proboscis capitis latitudine multo longior. Palpi porrecti, caput paullo superantes; articulus 3us longi-conicus, acuminatus. Antennæ late pectinatæ, thorace paullo longiores. Abdomen alas paullo superans. Pedes validi; tibiæ posticæ calcaribus quatuor longis. Alæ mediocriter latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

Male. Body stout. Head, thorax and legs very densely pilose. Proboscis much longer than the breadth of the head. Palpi porrect, extending a little beyond the head; third joint elongate-conical, acuminated. Antennæ deeply pectinated, about three-fourths of the length of the body. Abdomen extending very little beyond the hind wings. Legs stout; hind tibiæ with four long spurs. Wings moderately broad. Fore wings straight in front, slightly rounded at the tips, very oblique along the exterior border; first and second inferior veins united at the base; third full four times further from the fourth than from the second.

This genus much resembles some of the *Noctuites*, and is perhaps almost as nearly allied to them as to the *Arctiidæ*.

1. PITHEA FERRUGINEA.

Mas. *Ferruginea; palpi nigri; thorax postice fuscus; abdomen rufum, nigro quadrifasciatum; tibiæ tarsique nigra; alæ anticæ fuscæ, vitta costali testacea; posticæ subcinereæ.*

Male. Ferruginous. Palpi and antennæ black, the latter with tawny branches. Hind part of the thorax brown. Abdomen red, with four black bands towards the tip. Tibiæ and tarsi black. Fore wings brown, with a testaceous stripe along the costa. Hind wings grayish. Length of the body 6 lines; of the wings 16 lines.

Santa Fé de Bogotà. In Mr. Saunders' collection.

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ECPANTHERIA LÆTA.

Male. Var. Bands of the fore wings more interrupted, and composed of smaller spots. Hind wings wholly white, except a streak towards the end of the interior border, and a costal subapical dot, which are blackish.

Brazil. In Mr. Saunders' collection.

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ALOA LANCEOLATA.

Fœm. *Alba; palpi apice nigri; antennæ subpectinatæ, corpore paullo breviores; abdomen alas posticas triente superans, supra rufum, guttis nigris trivittatum; pedes graciles, longiusculi, nigro vittati, coxis anticis rufis; alæ longæ, angustæ.*

Female. White. Proboscis black. Palpi with black tips. Antennæ minutely pectinated, almost three-fourths of the length of the body; branches black. Abdomen extending for full one-third of its length beyond the hind wings; dorsum bright red, with three rows of black dots. Legs rather long and slender, with black stripes; fore coxæ red. Wings long and narrow; exterior border extremely oblique; third inferior vein full eight times further from the fourth than from the second, and hardly further from the second than the second is from the first. Length of the body 6 lines; of the wings 16 lines.

This species is of somewhat peculiar structure, and may form a new genus.

St. Domingo. In Mr. Saunders' collection.

ALOA VACILLANS.

Fœm. *Alba; abdomen luteum, vitta guttulari nigra, subtus fuscum aut albidum maculis lateralibus nigris; pedes fusci, coxis femoribusque luteo vittatis; alæ pallide fuscæ, anticæ apud costam albæ guttis nonnunquam discalibus nigris.*

Female. White. Antennæ black. Abdomen luteous, with a dorsal stripe of black dots; under side brown, with two rows of black spots on each side. Legs brown; coxæ and femora with luteous

stripes. Wings pale brown. Fore wings white along the costa, with four black dots in the disk, and with one near the end of the interior border. Length of the body 6—7½ lines; of the wings 16—20 lines.

Var. β. Abdomen whitish beneath. Fore wings without black dots.

Var. γ. Brownish white. Abdomen pale luteous.

a. North India. From Capt. Reid's collection.
b. Philippine Isles. From Mr. Cuming's collection.
c. Hong Kong. From Mr. Harrington's collection.

ALOA COMMA.

Fœm. *Pallide testacea; palpi nigri; abdomen rufescens, maculis subtus lateralibus nigris; alæ anticæ maculis duabus costalibus strigaque apud marginem interiorem arcuata nigris; posticæ albidæ.*

Female. Pale testaceous. Palpi and antennæ black. Abdomen reddish, with black spots along each side beneath. Fore wings with two black spots on the costa, and with a curved black streak on the interior border; first, second and third inferior veins approximate at the base; fourth very remote. Hind wings whitish. Length of the body 7 lines; of the wings 22 lines.

Hindostan. In Mr. Saunders' collection.

Page 716.

MALABUS? FUSCUS.

Obscure fusca; alæ anticæ macula antica flavescente; posticæ pallidæ, sordide rufescentes.

Phalæna-Bombyx fusca, *Cram. Pap. Exot.* iv. 37, pl. 307, f. G.
Antarctis fusca, *Hübn. Verz. Schmett.* 191, 1965.

Surinam.

Page 720.

PURIUS? PILUMNIA.

Rufescens; alæ pallide testaceæ, anticæ punctis vittisque tribus basalibus fuscis, guttisque discalibus nigris.

Phalæna-Bombyx Pilumnia, *Cram. Pap. Exot.* iv. 36, pl. 307, f. D.

Ocneria Pilumnia, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Hypogymniæ Subsquammatæ*), 158, 1650.

Surinam?

Page 724.

AMASTUS MESORHODA.

Fœm. *Pallide fuscus; palpi nigri; thoracis fascia antica vittisque duabus nigris; abdomen supra nigrum, roseo fasciculatum; pedes antici nigro strigati; alæ subhyalinæ, anticæ fascia exteriore nigricante, posticæ subcinereæ.*

Female. Pale brown. Proboscis tawny. Palpi black. Antennæ black, with tawny branches. Thorax with two lateral black stripes, which are connected by a black band in front. Abdomen black above, with a tuft of rosy hairs, occupying most of the breadth and full half the length from the base. Fore legs streaked with black. Wings slightly byaline. Fore wings with an indistinct exterior blackish band. Hind wings grayish. Length of the body 9 lines; of the wings 29 lines.

Bogotà. In Mr. Saunders' collection.

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AMERILA ASTRÆA.

Var. ♀. Head, thorax and fore wings testaceous. Prothorax without dorsal black spots. Fore wings with the vitreous spot abbreviated hindward, and more contracted as to its breadth than is usual in this species.

Silhet.

Port Natal. In Mr. Saunders' collection.

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OPHARUS BASALIS.

Mas. *Fusca; caput testaceum, apud oculos nigrum; thorax testaceus; abdomen nigro-fuscum, testaceo marginatum; coxæ femoraque lutea; alæ anticæ apud costam subconvexæ, nebula exteriore obscure fusca, venis ex parte nigro-fuscis, margine interiore basi testaceo et fasciculato.*

Male. Brown. Head testaceous, black about the eyes. Proboscis tawny. Palpi with the third joint a little shorter than in

O. Procrioides. Antennæ a little shorter than the body. Thorax, pectus and abdomen testaceous; disk of the latter blackish brown above and beneath. Legs long; coxæ and femora mostly luteous. Fore wings somewhat convex in front, slightly clouded with darker brown beyond the discal areolet; veins partly blackish brown; interior border testaceous, and tufted for a short distance from the base. Length of the body 6—7 lines; of the wings 18—20 lines.

South America. In Mr. Saunders' collection.

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HALESIDOTA TESSELARIS.

Halesidota tesselaris, (*Phalæna Vera Hypocrita Sphingiformis*), *Geyer, Zeitr. Samml. Exot. Schmett.* 34, 470, f. 939, 940.

Georgia.

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HALESIDOTA ATOMOSA.

Var. Head, thorax and fore wings pale luteous. Fore wings with numerous and various brown flecks, which form indistinct slightly undulating and very oblique bands.

Brazil. In Mr. Saunders' collection.

HALESIDOTA FLAVESCENS.

Mas. *Flava; palpi apice fuscescentes; antennæ fuscæ, basi flavæ; pedes albido-testacei, tibiæ et metatarsi antici apice genuaque fusca; femora antica supra fuscescentia; tibiæ anteriores fusco guttatæ; alæ posticæ albidæ, fusco marginatæ.*

Male. Yellow. Proboscis testaceous. Palpi brownish towards the tips. Antennæ brown, yellow at the base. Legs whitish testaceous; knees and tips of the tibiæ and of the fore metatarsi brown; fore femora brownish above; anterior tibiæ with a brown dot on each. Hind wings whitish, with pale brownish borders. Length of the body 5 lines; of the wings 12 lines.

Parà. In Mr. Saunders' collection.

HALESIDOTA APICALIS.

Mas. *Testacea; caput antice fuscum; palpi et antennæ fuscescentia; abdomen postice rufum, apice nigrum; pedes fusco varii; alæ semihyalinæ, anticæ striga obliqua discali nigricante.*

Male. Testaceous. Head brown in front. Proboscis, palpi and antennæ brownish. Abdomen red towards the tip, which is black. Fore tibiæ and anterior tarsi brown; posterior tibiæ with brown tips; hind tarsi brown towards the tips. Wings semihyaline. Fore wings with an oblique blackish streak at the tip of the discal areolet. Length of the body 4½ lines; of the wings 13 lines.

Brazil. In Mr. Saunders' collection.

HALESIDOTA DISCALIS.

Mas. *Albido-flava; caput rufo bifasciatum; antennæ fulvæ; abdomen album; pedes albi, antici rufi; alæ albido vitreæ, anticæ rufo ex parte subreticulatæ.*

Male. Whitish yellow. Head with a red band in front and another behind. Palpi red above. Antennæ tawny, with testaceous branches. Abdomen and legs white. Fore legs red. Wings whitish vitreous. Fore wings slightly and imperfectly reticulated with red, except on a large space in the disk. Length of the body 3½ lines; of the wings 10 lines.

Valley of the Amazon. In Mr. Saunders' collection.

HALESIDOTA CATENATA.

Fœm. *Fusca; caput luteum; thorax luteo maculatus; abdomen basi et apice supra luteum, subtus e maculis luteis bivittatum; alæ anticæ albidæ fasciis quatuor obliquis luteis fusco marginatis, venis fuscis; posticæ fuscæ, apud discum albidæ.*

Female. Brown, like *H. histrionica* in structure. Head mostly luteous. Thorax with several luteous spots. Abdomen luteous at the base and towards the tip above; under side with luteous spots along each side. Fore wings whitish, with brown veins, and with four irregular luteous oblique bands, which are bordered with brown. Hind wings brown, partly whitish in the disk. Length of the body 9 lines; of the wings 25 lines.

South America. In Mr. Saunders' collection.

HALESIDOTA CORTICEA.

Fœm. *Viridi-fusca ; palpi nigro vittati ; abdomen luteum, maculis lateralibus nigris ; tibiæ tarsique fusco fasciata ; alæ anticæ pallide testaceæ, fusco conspersæ, venis nigro fasciatis ; posticæ pallide cinereæ.*

Female. Greenish brown, much like *H. basipennis* in structure. Proboscis tawny. Palpi striped with black. Antennæ pale brown. Abdomen dull luteous, with a row of black spots along each side. Tibiæ and tarsi with brown bands. Fore wings pale testaceous, mostly thickly covered with brown flecks, which are frequently confluent, the intermediate parts forming slight undulating bands: veins with black bands. Hind wings pale cinereous. Length of the body 7 lines; of the wings 22 lines.

Venezuela. In Mr. Saunders' collection.

HALESIDOTA SEMIVARIA.

Mas et fœm. *Testacea ; caput et palpi nigro fasciata ; thoracis discus fuscus testaceo maculatus, latera testacea ocellis fuscis ; abdomen supra nigrum, maculis lateralibus apiceque rufis, subtus pallide testaceum fusco univittatum ; pedes fusco fasciati, coxis femoribusque ex parte rufis ; alæ anticæ fuscæ, apud costam testaceæ ocellis fuscis.* Mas.—*Alæ posticæ albidæ, apice fuscæ.* Fœm.—*Alæ posticæ obscure fuscæ.*

Male and female. Testaceous. Head and palpi with black bands. Proboscis tawny. Antennæ black. Disk of the thorax brown, with testaceous spots; sides testaceous, with brown ringlets. Abdomen above black, with bright red spots along each side; tip red; under side pale testaceous, with a brown stripe. Legs with brown bands; coxæ and femora partly red. Fore wings brown, testaceous and with brown ringlets along the costa. *Male.*—Hind wings whitish, with brown tips. *Female.*—Red abdominal spots confluent. Hind wings dark brown; ciliæ partly testaceous. Length of the body 6—7 lines; of the wings 16—18 lines.

Brazil. In Mr. Saunders' collection.

HALESIDOTA BASIPENNIS.

Fœm. *Obscure fusca ; palpi nigricantes ; abdomen supra luteum, e maculis nigris bivittatum ; alæ anticæ gutta discali testacea, posticæ basi testaceæ.*

Female: Dark brown. Proboscis tawny. Palpi and antennæ blackish. Abdomen above luteous, with two rows of black spots. Fore wings with a testaceous dot at the tip of the discal areolet. Hind wings testaceous towards the base. Length of the body 7 lines; of the wings 22 lines.

This species differs somewhat from the typical form of *Halesidota*; the palpi are longer, the third inferior vein of the fore wings is further from the second, and the fourth is much further from the third. In the length of the spurs of the hind tibiæ it is between *H. tessellaris* and *H. histrionica*, and has some resemblance to the genus *Opharus*, from which it is distinguished by the shortness of the terminal joint of the palpi.

Parà. In Mr. Saunders' collection.

HALESIDOTA SEMIRUFA.

Fœm. *Luteo-testacea, subtus albida; abdomen supra rufum, lateribus albis; alæ anticæ pallide testaceæ, rufo punctatæ, cervino guttatæ et bifasciatæ, fascia exteriore angulata; posticæ rufæ.*

Female. Luteous-testaceous, whitish beneath. Abdomen red above, white along each side. Fore wings pale testaceous, with numerous red points, and with two slender irregular oblique pale fawn-coloured bands, between which there are some fawn-coloured dots; outer band angular. Hind wings red, pale testaceous along the costa, and with testaceous ciliæ. Length of the body 10 lines; of the wings 24 lines.

Parà. In Mr. Saunders' collection.

HALESIDOTA ANTICA.

Mas. *Cinereo-fusca; caput fascia postica rufa; palpi nigri, subtus lutei; pectus rufo bivittatum; abdomen supra rufum, apice testaceum, maculis lateralibus fasciisque nigris; coxæ anticæ rufo vittatæ; femora antica basi rufa; alæ anticæ apud costam testaceæ; posticæ obscuriores.*

Male. Cinereous-brown. Head with a red band along the hind border. Proboscis tawny. Palpi black, luteous beneath. Antennæ black. Pectus with a red stripe along each side. Abdomen red above, testaceous at the tip; a black band on each segment, and a row of black spots along each side. Fore coxæ striped

with red; fore femora red at the base. Wings with whitish ciliæ; fore wings testaceous along the costa; hind wings a little darker than the fore wings. Length of the body 7 lines; of the wings 18 lines.

Vera Cruz. In Mr. Saunders' collection.

HALESIDOTA NIVEIGUTTA.

Mas et fœm. *Testacea; thorax fusco bivittatus; alæ anticæ lineis nonnullis obliquis undulosis fulvis, faseiis duabus fuscis guttaque exteriore nigro-fusca; posticæ albæ.* Mus.—*Abdomen apice album.*

Male and female. Testaceous, paler beneath. Thorax with two pale brown stripes. Fore wings with several oblique undulating tawny lines, with two oblique brown bands, and with an exterior blackish brown dot; first band curved, irregular; second straight. Hind wings white. *Male.*—Antennæ nearly as long as the body. Abdomen white at the tip. Length of the body 4—7 lines; of the wings 12—18 lines.

Colombia and Brazil. In Mr. Saunders' collection.

HALESIDOTA BINOTATA.

Fœm. *Pallide rufa; antennæ nigræ, graciles, subsetosæ; alæ anticæ acuminatæ, fusco subnebulosæ, striga postica basali guttaque discali luteis; posticæ pallidissime rufæ, basi vitreæ.*

Female. Pale red. Palpi rather shorter than usual. Antennæ black, slender, very minutely setose, nearly twice the length of the thorax. Fore wings very slightly convex in front, somewhat acuminated at the tips, very oblique along the exterior border, very minutely mottled with brown, with a luteous mark at the base of the interior border, and with a luteous dot at the tip of the discal areolet. Hind wings very pale red, vitreous towards the base. Length of the body 9 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

HALESIDOTA DISCIPLAGA.

Mas. *Pallide fusca; palpi et antennæ nigricantia; thorax apud marginem anticum pallide luteus; abdomen supra pallide luteum, disco medio nigricante; posticæ albidæ, semihyalinæ, fusco marginatæ.*

Male. Pale brown. Proboscis tawny. Palpi and antennæ blackish. Thorax pale luteous on the fore border. Abdomen pale luteous above; disk in the middle blackish. Hind wings whitish, semihyaline, pale brown at the tips and along the exterior border, testaceous along the interior border. Length of the body 7 lines; of the wings 20 lines.

Brazil. In Mr. Saunders' collection.

HALESIDOTA CINGULATA.

Mas et fœm. *Rufa; abdomen fasciis nigris basi interruptis; alæ anticæ cinereo confertim nebulosæ, posticæ pallidiores.* Mas.—*Palpi apice fusci.* Fœm.—*Palpi apice nigri; thoracis discus fuscescens.*

Male and female. Red. Abdomen with black bands, which are interrupted towards the base. Fore wings thickly mottled with indistinct gray marks. Hind wings a little paler than the fore wings. *Male.*—Palpi with brown tips. *Female.*—Palpi with black tips. Disk of the thorax slightly brownish. Length of the body 9—13 lines; of the wings 26—34 lines.

Jamaica and Brazil. In Mr. Saunders' collection.

HALESIDOTA? LUTOSA.

Lutea; thorax viridi bivittatus; alæ anticæ cinereæ, fascia lata obliqua alba; posticæ albæ cinereo marginatæ. Mas.—*Abdomen cinereum, apice luteum.* Fœm.—*Abdominis latera cinerea; alæ anticæ litura obliqua discali cinerea.*

Empusa lutosa, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* ii. *Veræ*, vii. *Hypocritæ A. Sphingiformes*, 2, f. 1—4; *Verz. Schmett.* 170, 1749.

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2. AMBRYLLIS NEUROPHYLLA.

Fœm. *Cervina; caput anticum, palpi antennæque atra; pedes nigricantes; alæ semihyalinæ, anticæ maculis quatuor costalibus strigisque transversis posterioribus nigris.*

Phægoptera neurophylla, *MSS.*

Female. Fawn-colour. Head in front, palpi and antennæ deep black, the latter serrated. Legs blackish. Fore wings semihyaline, with four black costal spots; first spot nearly joining a

hinder curved transverse streak; second and third also nearly contiguous to two streaks, which are united in front; fourth spot with some submarginal blackish streaks along the veins behind it. Hind wings with the fawn-colour and black marks almost obliterated in the specimen described. Length of the body 8 lines; of the wings 20 lines.

Venezuela. In Mr. Saunders' collection.

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SCIATHOS PUNCTIGER.

Bombyx tricolora, *Fabr. Ent. Syst.* iii. 1, 432, 77.
Trosis tricolora, *Hübn. Verz. Schmett.* 196, 2008.

Cayenne.

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PINARA CANA.

Var. Gray. Fore wings brownish in front. Hind wings grayish brown.

m. Sidney. From Mr. Lambert's collection.

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Genus MINARA.

Mas. Corpus cylindricum, vix robustum. Proboscis brevissima. Palpi porrecti, caput paullo superantes; articulus 3us conicus, parvus. Antennæ subpectinatæ, thorace paullo longiores. Abdomen alas posticas triente superans. Pedes sat validi; tibiæ posticæ calcaribus quatuor longiusculis. Alæ vix latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore sat obliquo vix convexo.

Male. Body cylindrical, hardly stout. Proboscis very short. Palpi porrect, extending a little beyond the head; third joint conical, not more than one-fourth of the length of the second. Antennæ slightly pectinated, a little longer than the thorax. Abdomen extending for one-third of its length beyond the hind wings. Legs moderately stout; hind tibiæ with four rather long spurs. Wings hardly broad. Fore wings straight in front, rounded at the tips, rather oblique and very slightly convex along the interior border; second inferior vein about twice further from the third than from the first.

This genus is very distinct from *Arctia*, with which the Synopsis, p. 586, associates it.

1. MINARA PARDALINA.

Mas. *Nigro-fusca; proboscis et antennæ fulva; palpi nigri; thorax fasciculis duabus lateralibus pallide testaceis; abdominis segmenta testaceo fasciata; pedes ex parte testacei; alæ anticæ pallide cervinæ, maculis basalibus, strigis exterioribus guttisque marginalibus nigris; posticæ subtus pallidiores.*

Male. Blackish brown. Proboscis and antennæ tawny. Palpi black. Thorax with a tuft of long pale testaceous hairs on each side. Abdomen with a testaceous band on the hind border of each segment. Legs partly testaceous. Fore wings pale fawn-colour, with irregular black spots on half the length from the base, and with black streaks on the exterior half; a row of black dots along the exterior border. Hind wings paler beneath. Length of the body 7—8 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

Genus MASSICYTA.

Mas. Corpus robustum. Proboscis non conspicua. Palpi caput superantes; articulus 3us elongatus, acuminatus, 2o brevior. Antennæ subpectinatæ, thorace longiores. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ latiusculæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Male. Body stout. Proboscis not visible. Palpi extending somewhat beyond the head; third joint elongate, acuminated, shorter than the second. Antennæ minutely pectinated, rather longer than the thorax. Abdomen extending as far as the hind wings. Legs stout; hind tibiæ with two short apical spurs. Wings rather broad. Fore wings hardly convex in front, rounded at the tips, moderately oblique along the exterior border; second inferior vein as near to the third as to the first; third almost six times further from the fourth than from the second.

1. MASSICYTA FUSCA.

Mas. *Fusca; antennæ testaceæ; abdomen vittis lateralibus apiceque luteis; alæ testaceo conspersæ; anticæ litura discali angulata; posticæ apud discum cinereæ.*

Male. Brown. Antennæ testaceous. Abdomen dull luteous along each side and at the tip. Wings thickly covered with testaceous flecks. Fore wings with an angular black mark at the tip of the discal areolet. Hind wings grayish, except towards the borders. Length of the body 7—8 lines; of the wings 22 lines.

a, *b*. Brazil. From Mr. Stevens' collection.

Genus ŒNOSANDA.

Mas et fœm. Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ simplices, thorace multo longiores. Thorax dense lanuginosus. Abdomen alas posticas non superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus parvis apicalibus. Alæ longiusculæ, mediocriter latæ; anticæ vix acuminatæ, apud costam rectæ, margine exteriore perobliquo.

Male and female. Body stout. Proboscis not visible. Palpi very short. Antennæ simple, much longer than the thorax. Thorax thickly clothed with woolly hairs. Abdomen extending about as far as the hind wings. Legs stout, pilose; hind tibiæ with two short apical spurs. Wings rather long, moderately broad. Fore wings straight in front, hardly acuminated, very oblique along the exterior border; three inferior veins; first and second nearly contiguous at the base; third remote.

1. ŒNOSANDA DUPONCHELII.

Mas et fœm. *Alba; caput nigro guttatum; pectus fuscum; abdomen nigrum, fasciis dorsalibus luteis; pedes nigri, tarsis albo fasciatis; alæ anticæ costa nigra, vittaque discali nigra albo luteoque varia.*

Œnosandra Duponchelii, *Newman, Trans. Ent. Soc. London*, 1856.

Male and female. White. Head with a black dot in front. Antennæ black. Pectus brown. Abdomen black, with luteous dorsal bands. Legs black; tarsi with white bands. Fore wings with a black costa, and with a black discal stripe, which extends along the whole length and is more or less varied with white, and is covered with luteous speckles. Length of the body 6—7 lines: of the wings 20—26 lines.

a. Australia. Presented by Major-Gen. Hardwicke.
b. Swan River. Presented by Sir J. Richardson.
c. Tasmania. Presented by Morton Allport, Esq.
d. Australia. Presented by the late Earl of Derby.
e. Tasmania. Presented by J. G. Children, Esq.

Genus PODALIA.

Group 1.

Fœm. Corpus crassum. Proboscis non conspicua. Palpi brevissimi. Antennæ vix pectinatæ. Abdomen apice dense lanuginosum, alas posticas vix superans. Pedes validi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ longiusculæ, mediocriter latæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore perobliquo.

Female. Body thick. Proboscis not visible. Palpi very short. Antennæ setaceous, very minutely pectinated, a little longer than the thorax. Abdomen thickly lanuginose at the tip, hardly extending beyond the hind wings. Legs stout; hind tibiæ with two minute apical spurs. Wings rather long, moderately broad. Fore wings very slightly convex in front, rounded at the tips, extremely oblique along the exterior border; second inferior vein about twice further from the third than from the first; third much further from the fourth than from the second.

1. Podalia Vesta.

Fœm. *Alba; thorax fascia una integra nigra alteraque interrupta fusca; abdomen fusco fasciatum; pedes ex parte nigri; alæ anticæ fasciis duabus diffusis, maculis discalibus guttisque marginalibus fuscis; posticæ pallide fuscæ, apud marginem exteriorem albæ fusco maculatæ.*

Bombyx Vesta, *MSS.*

Female. White. Antennæ with black branches. Thorax with an entire black band and an interrupted brown band. Abdomen with brown bands. Legs mostly black. Fore wings with two diffuse brown bands, and some discal brown spots; a row of semicircular brown spots along the exterior border. Hind wings pale brown, white towards the exterior border, which has spots like the fore wings. Length of the body 15 lines; of the wings 44 lines.

Brazil. In Mr. Saunders' collection.

Group 2.

Mas. Corpus crassum. Caput subporrectum. Palpi brevissimi. Antennæ latissime pectinatæ, basi approximatæ. Abdomen alas posticas paullo superans. Pedes validi, pilis longis densissime vestiti. Alæ mediocriter latæ; anticæ subacuminatæ, apices versus

angustæ, margine exteriore perobliquo. *Fœm.*—Antennæ subpectinatæ. Abdomen apice densissime fasciculatum.

Male. Body thick. Head prominent in front. Proboscis not visible. Palpi very short. Antennæ very deeply pectinated, approximate at the base. Abdomen extending a little beyond the hind wings. Legs stout, thickly clothed with long hairs; hind tibiæ with minute apical spurs. Wings moderately broad. Fore wings mostly straight in front, narrow towards their tips, which are slightly acuminated; exterior border very oblique; second inferior vein full twice further from the third than from the first; third much nearer to the fourth than to the second. Hind wings with the costal membrane more or less dilated towards the base; discal areolet broad, distinctly divided by a genuine vein. Frenulum distinct. *Female.*—Antennæ minutely pectinated. Abdomen very thickly tufted at its tip.

This group in several characters resembles the *Bombycites*, in which the wings have no frenulum.

2. Podalia Citri.

Mas. *Fusca; caput supra roseum; thorax maculis roseis; abdomen roseo fasciatum; pedes posteriores ex parte roseo hirti; alæ albidæ, basi subroseæ, anticæ fusco strigatæ, fascia posteriore maculaque discali obscurioribus; posticæ apud venas fusco substriyatæ.*

Phalæna-Bombyx Citri, *Anon. Ins. Surinam*, i. 31, pl. 12.

Male. Brown. Head rosy above. Antennæ whitish, about one-fifth of the length of the body. Thorax with several rosy spots. Abdomen above with rosy bands. Posterior legs partly clothed with rosy hairs. Wings whitish, with a rosy tinge at the base. Fore wings streaked with brown, which forms cuneiform marks along the exterior border; a short posterior band at one-third of the length and a spot at the tip of the discal areolet darker brown. Hind wings with slight brown streaks along the veins; costal membrane much dilated. Length of the body 9—11 lines; of the wings 22—26 lines.

Fœm. *Nigro-fusca; caput macula rosea, antice testaceum; thorax roseo biguttatus; abdomen fasciis dorsalibus roseis, antice albidum; pedes ex parte roseo hirti, alæ albidæ, fusco variæ; anticæ basi nigro-fuscæ.*

Female. Blackish brown. Head testaceous in front, and with a rosy disk above. Antennæ whitish, about one-fifth of the length of the body. Thorax with a rosy dot on each side. Abdomen above with rosy bands; tip whitish. Legs partly clothed with rosy hairs. Wings like those of the male. Fore wings with the brown band more interrupted; the cuneiform marks less distinct; base blackish brown. Length of the body 15 lines; of the wings 36 lines.

a. Rio Janeiro. From Mr. Stevens' collection.
b, c. ———? Presented by E. Doubleday, Esq.
d. ———?

The larva feeds on the leaves of the orange (*Citrus Aurantium*). It is nearly related to *Alpis xanthopasa*, p. 1095, which may be one of the *Limacodidæ*. *Cerura Orsilochus*, p. 988, may belong to this genus.

3. Podalia fuscescens.

Mas. *Fusca; caput supra pallide roseum; antennæ albidæ; thorax maculis nonnullis pallide roseis aut testaceis; abdomen maculis aut fasciis apiceque testaceis; pedes ex parte testaceo aut roseo hirti; alæ anticæ pallide fuscæ fascia obscuriore, antice albidæ, strigis basim versus albidis et obscure fuscis, strigis exterioribus cuneatis obscure fuscis albido marginatis, maculis submarginalibus albidis; posticæ obscure fuscæ.*

Male. Brown. Head pale rosy above. Antennæ whitish, full one-third of the length of the body. Thorax with some pale rosy or testaceous spots. Abdomen with testaceous bands or dorsal spots; tip testaceous. Legs partly clothed with testaceous or pale rosy hairs. Fore wings pale brown, with a darker brown middle oblique band, which is interrupted in front and dilated hindward; anterior half mostly whitish; some undulating occasionally indistinct whitish and dark brown streaks towards the base; a row of cuneiform dark brown whitish-bordered marks at some distance from the exterior border, along which there is a row of whitish spots; a ferruginous brown stripe along the interior border. Hind wings dark brown; costal membrane slightly dilated. Length of the body 12—14 lines; of the wings 30—36 lines.

a. Rio Janeiro. From Mr. Stevens' collection.
b. Brazil. From M. Becker's collection.
c. ———?

Fœm.? *Fusca; caput et thorax anticus obscure fusca; thorax albo fasciatus; abdomen fasciis albis, apice cervinum; alæ anticæ basi et apud costam dense lanuginosæ, costa, fascia obliqua maculisque exterioribus cuneatis albidis, fascia obliqua obscure fusca; posticæ pallide fuscæ, strigis inter venas albidis.*

Female? Brown. Head and fore border of the thorax dark brown. Antennæ whitish, full one-third of the length of the body. Thorax with a white band in front. Abdomen with white bands, fawn-coloured at the tip. Fore wings from the base to the middle and along the costa thickly clothed with crispy woolly hairs, whitish along the costa, and with a diffuse oblique whitish band beyond the middle, and with a row of whitish cuneiform spots between it and the exterior border; a dark brown oblique band before the middle, interrupted in front, dilated behind, and with two small dark brown marks in front between it and the exterior border. Hind wings pale brown, with whitish streaks between the veins along the exterior border. Length of the body 9 lines; of the wings 24 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

4. PODALIA DORSIMACULA.

Alba; caput antice palpique fusca; thorax e maculis fuscis quadrifasciatus; abdomen fasciis dorsalibus fuscis; alæ fuscæ, anticæ basi albo variæ, fascia ramosa strigisque exterioribus albis; posticæ apud marginem exteriorem albidæ fusco maculatæ.

Male. White. Head in front and palpi brown. Antennæ with brown branches. Thorax with four bands of brown spots. Abdomen with brown dorsal bands. Wings brown. Fore wings marked with white at the base, with a diffuse ramose oblique white band beyond the middle, and with white cuneiform streaks along the exterior border. Exterior border of the hind wings whitish, with brown spots. Length of the body 13 lines; of the wings 28 lines.

a. ———? From Mr. Children's collection.

Genus DECIMIA.

Mas. Corpus robustum. Caput et thorax pilosissima. Proboscis non conspicua. Palpi breviusculi; articulus 3us minimus.

Antennæ validæ, late pectinatæ. Abdomen alas posticas longe superans. Pedes validi; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ angustæ; anticæ longiusculæ, apud costam rectæ, apice rotundatæ, margine exteriore perobliquo; posticæ breviusculæ.

Male. Body stout. Head and thorax very hairy. Palpi rather short; third joint very small. Antennæ stout, deeply pectinated, about half the length of the body. Abdomen rather long, tapering from near the base to the tip. Legs stout; hind tibiæ with two moderately long apical spurs. Wings narrow. Fore wings very much longer than the hind wings, straight in front, rounded at the tips, very oblique along the exterior border; first, second and third inferior vein nearly contiguous at the base; fourth more than twice further from the third than the third is from the first. Hind wings extending to nearly half the length of the abdomen.

The Synopsis, p. 586, includes this genus with *Sciathos*, from which it is distinguished by the preceding characters. It is somewhat allied to *Antheua*.

1. DECIMIA BICOLORA.

Mas. *Fusca; caput, thorax, pectus, abdominis fasciæ pedesque lutea; alæ cinereo-fuscæ, apud costam luteæ.*

Male. Brown. Head, thorax, pectus, fore borders of the abdominal segments and legs thickly clothed with luteous hairs. Antennæ testaceous above. Wings grayish brown, slightly hyaline; costa luteous; ciliæ testaceous. Hind wings rather paler than the fore wings. Length of the body 8—9 lines; of the wings 14—16 lines.

Var. β. Wings towards the base and fore wings along the costa luteous.

a. South Africa. Presented by Dr. A. Smith.
b. Port Natal. From Mr. Stevens' collection.

Genus ARCHYLUS.

Mas. Corpus sublineare, subcylindricum, mediocriter longum et robustum. Palpi brevissimi. Antennæ subtus serratæ aut subpectinatæ. Pedes graciles; tibiæ posticæ calcaribus nullis. Alæ latæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore sat obliquo; posticæ abdomen vix superantes.

Allied to *Norape*. *Male.*—Body nearly linear and cylindrical, moderately long and stout. Proboscis and palpi very short. Antennæ serrated or very minutely pectinated beneath. Abdomen extending almost as far as the hind wings. Legs slender; hind tibiæ without spurs. Wings broad. Fore wings hardly convex in front, rounded at the tips, rather oblique along the exterior border; discal fold distinct; second inferior vein nearer to the first than to the third; third hardly nearer to the second than to the fourth. Hind wings straight in front; the four inferior veins near together.

1. ARCHYLUS GUTTIFASCIA.

Mas. *Argenteo-albus; caput ex maximâ parte nigrum; antennæ nigræ; abdomen fasciis luteis; pedes fusco vittati; tarsis fuscis; alæ anticæ e guttis nigris oblique fasciatæ, guttaque basali nigra.*

Male. Silvery white. Head mostly black. Antennæ black. Abdomen with luteous bands. Legs with brown stripes; tarsi wholly brown. Fore wings with a black dot near the inner border toward the base, and with an oblique band composed of twelve black dots. Length of the body 4 lines; of the wings 14 lines.

a. Tapayos, Brazil. From Mr. Bates' collection.

Genus ANACE.

Mas. Corpus gracile. Palpi graciles, porrecti, caput paullo superantes; articulus 3us conicus, minimus. Antennæ late pectinatæ, apices versus subpectinatæ. Abdomen alas posticas longe superans. Pedes sat graciles; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ angustæ; anticæ longiusculæ, apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

Male. Body slender. Palpi slender, porrect, not long, extending a little beyond the head; second joint much longer than the first; third conical, very minute. Antennæ rather more than half the length of the body, deeply pectinated for two-thirds of the length, where the branches become abruptly shorter. Legs rather slender; hind tibiæ with two small apical spurs. Wings narrow. Fore wings very much longer than the hind wings; first and second inferior veins springing from a long common petiole; fourth about twice further from the third than the third is from the second. Hind wings extending to a little beyond half the length of the abdomen.

1. ANACE PERPUSILLA.

Testacea; palpi et pedes rufi; antennæ fuscæ; alæ cervinæ, anticæ e maculis albis hyalinis bifasciatæ, posticæ discis albidis.

Male. Testaceous. Palpi pale red. Antennæ brown. Abdomen pale red at the tip. Legs pale red. Wings fawn-colour. Fore wings with two oblique bands of white hyaline spots; the first band composed of three spots, the middle one much smaller than either of the other two; the second of four spots, the third from the fore border very small. Hind wings with whitish disks. Length of the body 4½ lines; of the wings 11 lines.

a. ——— ? Presented by E. Doubleday, Esq.

2. ANACE? INVARIA.

Fœm. *Pallide rufa; palpi brevissimi; antennæ subpectinatæ; abdomen alas posticas plus dimidio superans; pedes gracillimi; tibiæ posticæ calcaribus apicalibus minimis; alæ anticæ perangustæ, litura discali obscura.*

Female. Pale red. Proboscis not visible. Palpi very short. Antennæ very minutely pectinated, much longer than the thorax. Abdomen extending for more than half its length beyond the hind wings. Legs very slender; hind tibiæ with two very minute apical spurs. Wings very narrow, like those of *A. perpusilla* in structure. Fore wings with a dark mark at the tip of the discal areolet. Length of the body 7 lines; of the wings 12 lines.

a. West Africa. From Mr. Fraser's collection.

3. ANACE RUBRA.

Mas. *Rufa; proboscis brevissima, conspicua; palpi breves; antennæ late pectinatæ; abdomen alas posticas dimidio superans; pedes validi; tibiæ posticæ calcaribus duobus longis apicalibus; alæ longiusculæ, sat angustæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore perobliquo.*

Male. Red, which is brighter on the head and thorax than elsewhere. Proboscis very short, but distinct. Palpi short; third joint conical, acute. Antennæ black, deeply pectinated. Abdomen extending for about half its length beyond the abdomen. Legs stout; hind tibiæ with two long apical spurs. Wings rather long and narrow. Fore wings straight in front, rounded at the tips, very oblique along the exterior border; first and second inferior

veins united at the base; third near the second, and more than twice further from the fourth. Length of the body 9—10 lines; of the wings 19—22 lines.

a. Cape. From M. Dregé's collection.
b. Port Natal. From M. Gueinzius' collection.

Genus BALACRA.

Fœm. Corpus robustum, cylindricum, longissimum. Palpi brevissimi; articulus 3us conicus, minimus. Antennæ simplices, corporis dimidio breviores. Abdomen alas posticas longissime superans. Pedes sat validi; tibiæ posticæ calcaribus duobus apicalibus parvis. Alæ anticæ longæ, angustæ, apud costam rectæ, apice rotundatæ, margine exteriore perobliquo; posticæ breves, antice dilatatæ.

Female. Body stout, cylindrical, very long. Palpi very short; third joint conical, very minute. Antennæ simple, less than half the length of the body. Abdomen extending very far beyond the hind wings. Legs rather short; hind tibiæ with two minute apical spurs. Fore wings long and narrow; discal fold very distinct; first and second inferior veins contiguous at the base; submedian vein undulating. Hind wings short, dilated in front; first and second inferior veins united at the base; third much nearer to the second than to the fourth.

1. Balacra cæruleifascia.

Fœm. *Læte rufa; caput fusco fasciatum; palpi apice nigri; antennæ nigræ; thorax fascia antica vittisque tribus fuscis; abdomen fasciis nigro-cyaneis; tibiæ supra tarsique nigricantia; alæ anticæ rufo-cervinæ, guttis basalibus læte rufis maculisque sex limpidis; posticæ pallide rufæ.*

Female. Bright red. Head with a brown band between the antennæ. Palpi with black tips. Antennæ black. Thorax with a brown band in front and with three brown stripes. Abdominal segments with blackish blue bands. Tibiæ above and tarsi blackish. Fore wings reddish fawn-colour, with three bright red marks at the base, and with six limpid spots, one on the discal areolet, one in front of the first superior vein, one on the discal fold beyond the areolet, one in front of the second inferior vein, one in front of the third inferior vein, and one between the fourth inferior vein and the submedian vein; third inferior vein as near to the fourth as to the

second; under side towards the base and hind wings pale red. Length of the body 9½ lines; of the wings 24 lines.

a. ——— ? Presented by E. Doubleday, Esq.

2. Balacra flavimacula.

Fœm. *Rufa; alæ anticæ sordide rufescentes, basi et apud venas cinereæ, maculis tribus flavis rufo marginatis; posticæ pallidiores.*

Female. Red. Palpi and legs red. Fore wings dull reddish, gray towards the base and along the veins, with two red marks at the base, and with three red-bordered yellow spots, the first large, on the disk at one-third of the length; the second small, on the discal areolet; the third on the disk beyond; third inferior vein much nearer to the second than to the fourth. Hind wings unspotted, rather paler than the fore wings. Length of the body 6 lines; of the wings 18 lines.

a. Ashanti. From the Wesleyan Missionary Society's collection.

Genus PLATEIA.

Mas. Corpus sat gracile. Antennæ late pectinatæ. Abdomen alas posticas non superans. Alæ latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore sat obliquo.

Plateia, *Hübn. Verz. Schmett.* 187.

Plateia Ebalus.

Mas. *Lutea; abdomen fasciis albis, disco nigro; alæ roseæ; anticæ fasciis duabus obliquis pallidioribus, posticæ pallide roseæ, margine obscuriore.*

Phalæna-Bombyx Ebalus, *Cram. Pap. Exot.* i. 79, pl. 50, f. G.
Plateia Ebale, *Hübn. Verz. Schmett.* 187, 1932.

Surinam.

Genus HEBENA.

Fœm. Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ subpectinatæ, thorace multo longiores. Abdomen alas posticas dimidio superans. Pedes validi; tibiæ posticæ calcaribus duobus mediocriter longis. Alæ sat latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore perobliquo.

Female. Body stout. Proboscis not visible. Palpi very short. Antennæ very minutely pectinated, much longer than the thorax. Abdomen extending for half its length beyond the hind wings. Legs stout; hind tibiæ with two moderately long apical spurs. Wings moderately broad. Fore wings almost straight in front, rounded at the tips, very oblique along the exterior border; first and second inferior veins united at the base; third rather nearer to the second than to the fourth.

1. HEBENA VENOSA.

Fœm. *Rufa; antennæ nigræ; pedes ex parte nigri; alæ anticæ supra nigricantes, venis rufo marginatis; posticæ pallidissime rufæ.*

Female. Red. Antennæ black. Legs mostly black. Fore wings blackish above; veins red and with red borders. Hind wings very pale red. Length of the body 9 lines; of the wings 22 lines.

Port Natal. In Mr. Saunders' collection.

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For	ii. Alæ angustæ - - - -	15. AMSACTA.
	†† Pedes graciles - - - - -	9. ACYPHAS.
Read	††† Pedes sat validi - - -	9. ACYPHAS.
	ii. Alæ angustæ - - - - -	15. AMSACTA.

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† Alæ dense vestitæ.
‡ Abdomen non lanuginosum. - 8. CHARNIDA.
‡‡ Abdomen lanuginosum. - 40. EUPROCTIS.
†† Alæ parum vestitæ - - - 39. LEUCOMA.
b. Corpus sat gracile, &c.

These lines to be substituted for the corresponding lines in the above page, and the line "i. Antennæ *maris* latissime pectinatæ," to be cancelled.

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ORGYIA LEUCOGRAPHA.

Mas. *Obscure fusca; alæ anticæ pallidiores, striga subbasali, macula costali ante apicali, fasciisque duabus, 1a lata ante media, 2a angusta arcuata postmedia, nigro-fuscis, macula postica alba.* Fœm.—*Aptera.*

Cladophora leucographa, (*Phalæna Vera, Dasychira colorata*), *Geyer, Zeitr. Samml. Exot. Schmett.* 33, 373, f. 745, 746.

Georgia.

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REPENA INVARIA.

Mas. **Fuscescens ; palpi crassi, caput longe superantes ; antennæ latissime pectinatæ, pedes graciles ; alæ anticæ nubeculosæ, lineis transversis obliquis subundulosis nigricantibus ; posticæ obscuriores.*

Male. Brownish. Palpi very stout, extending beyond the head. Antennæ very deeply pectinated. Legs slender. Fore wings slightly mottled, with indistinct slender oblique somewhat undulating blackish bands. Hind wings darker than the fore wings. Length of the body 5½ lines; of the wings 14 lines.

a. Philippine Islands. From Mr. Cuming's collection.

Genus REPENA?

Mas. Corpus gracile. Palpi porrecti, subtus hirsutissimi; articulus 1us brevissimus; 2us longissimus; 3us parvus, conicus. Antennæ latissime pectinatæ, ramis pilosis. Abdomen alas posticas non superans. Pedes sat graciles, mediocriter longi; tibiæ posticæ calcaribus quatuor longis. Alæ latæ.

Male. Body slender. Palpi porrect, very hairy beneath; first joint very short; second very long; third small, conical. Antennæ very deeply pectinated; branches pilose. Abdomen extending as far as the hind wings. Legs rather slender, moderately long; hind tibiæ with four long spurs. Wings broad. Fore wings with the first, second and third inferior veins near together at the base; second half the distance between the first and the third; third about thrice further from the fourth than from the second.

REPENA? FUSCA.

Mas. *Fusco-testacea ; palpi fusco varii ; antennæ fuscæ, albido annulatæ ; pedes fusci, albido fasciati ; alæ anticæ fasciis angulosis, ocello discali, lunulis submarginalibus atomisque fuscis ; posticæ pallide fuscæ, albido variæ.*

Male. Brownish testaceous. Palpi with a dark brown streak on the second joint; third joint dark brown at the base. Antennæ

brown, with whitish bands, which are equal in number to the branches on each side; base whitish. Legs brown; femora whitish; tibiæ and tarsi with whitish bands. Fore wings powdered with dark brown, the flecks here and there confluent; three or four more or less indistinct brown partly whitish-bordered zigzag oblique bands; a subquadrate brown discal ocellus, and a row of submarginal brown crescents along the exterior border; cilia brown, with testaceous intervals opposite the veins; under side brownish testaceous, with a brown band. Hind wings pale brown, here and there dingy whitish, and with a pale cilia; under side with a brown discal spot, and a brown band which corresponds to that of the fore wings. Length of the body 6—8 lines; of the wings 15—16 lines.

a—*d*. South Africa. Presented by Dr. A. Smith.
e. ——? Presented by H. F. Evans, Esq.

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Genus AMSACTA?

Mas. Corpus mediocriter robustum. Oculi magni. Proboscis brevissima. Palpi brevissimi; articulus 3us minimus. Antennæ late pectinatæ. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus duobus longis apicalibus. Alæ breviusculæ, sat angustæ.

Male. Body moderately stout. Eyes large. Proboscis very short. Palpi very short; third joint very small. Antennæ deeply pectinated. Abdomen extending as far as the hind wings. Legs stout; hind tibiæ with two long apical spurs. Wings rather short and narrow. Fore wings with three inferior veins; first and second contiguous at the base; third rather remote.

AMSACTA? TENEBROSA.

Mas. *Cinerea; antennæ fuscæ; abdomen basi canum; alæ anticæ fasciis duabus angulosis connexis lituraque cuneiformi nigricantibus; posticæ cano-albæ.*

Male. Cinereous. Antennæ brown. Abdomen hoary towards the base. Fore wings before the middle with two angular blackish bands, which are connected in the disk by two blackish streaks; a cuneiform blackish mark beyond the middle, near the hind border. Hind wings hoary white. Length of the body 3 lines; of the wings 8 lines.

a. North India. From Capt. Boys' collection.

ELORIA MŒSTA.

Mas. *Nigro-cinerea; palpi basi et thorax anticus lutei; alæ apud discos plus minusve albidæ aut cinerascentes.*

Male. Blackish gray. Palpi luteous towards the base. Antennæ black. Thorax luteous in front. Wings more or less whitish or pale gray in the middle part of the disk. Length of the body 6—7 lines; of the wings 16—20 lines.

Valley of the Amazon. In Mr. Saunders' collection.

ELORIA LUCIDA.

Mas. *Testacea; palpi apice fusci; pedes fusco vittati; alæ albæ, semihyalinæ, venis nigro-fuscis, anticæ striga costali margineque fuscis.*

Male. Testaceous. Palpi with brown tips. Antennæ brown. Legs striped with brown. Wings white, semihyaline; veins blackish brown. Fore wings tinged with brown on the apical half of the costa and along the exterior border, and across the tip of the discal areolet. Length of the body 6 lines; of the wings 16 lines.

Brazil. In Mr. Saunders' collection.

ELORIA TURBIDA.

Mas. *Lutea; palpi fuscescentes; pedes fusci; alæ albæ, semihyalinæ, marginibus nigricantibus, venis nigris; anticæ apices versus nigricantes.*

Male. Luteous. Palpi mostly brown. Antennæ and legs brown. Wings white, semihyaline, blackish along the borders; veins black. Fore wings blackish from the end of the discal areolet to the tips. Length of the body 4 lines; of the wings 12 lines.

a. ——— ? Presented by E. Doubleday, Esq.

ELORIA DISCALIS.

Mas. *Fuscescens, subtus lutea; palpi lutei, apice fuscescentes; antennæ nigræ; pedes albidi; alæ hyalinæ, albæ aut subcinereæ, marginibus nigris, venis nigro limbatis, anticæ fascia obliqua discali nigra.*

Male. Brownish, luteous beneath. Palpi luteous, brownish towards the tips. Antennæ black. Legs whitish. Wings white,

hyaline, black about the borders and along the veins. Fore wings with a black oblique band across the end of the discal areolet. Length of the body 5—6 lines; of the wings 16—18 lines.

Var. β. Wings grayish instead of white, with the exception of two incomplete bands on the fore wings.

a. Ega. From Mr. Bates' collection.

ELORIA? INTACTA.

Mas. *Alba; palpi gracillimi; antennæ latissime pectinatæ; tibiæ posticæ calcaribus brevissimis; alæ latæ, anticæ apud marginem exteriorem sat obliquæ.*

Male. White. Palpi very slender. Antennæ very deeply pectinated. Spurs of the hind tibiæ very short. Wings broad. Fore wings moderately oblique along the exterior border; second inferior vein about six times further from the third than from the first; third further by one-third from the fourth than from the second. Length of the body 5 lines; of the wings 15 lines.

a. West Coast of America. Presented by Capt. Wood and Lieut. Kellett.

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CYPRA? INCONCLUSA.

Mas. *Alba; palpi gracillimi, caput vix superantes; antennæ subpectinatæ; pedes graciles; tibiæ posticæ calcaribus quatuor sat longis; alæ subhyalinæ, fasciis duabus exterioribus subcinereis, anticæ maculis tribus costalibus unaque discali cinerascentibus.*

Male. White. Proboscis moderately long. Palpi very slender, slightly curved, hardly extending beyond the head. Antennæ slightly pectinated. Abdomen wanting in the specimen described. Legs slender; hind tibiæ with four moderately long spurs. Wings nearly hyaline, with two incomplete pale grayish bands, one marginal, the other submarginal. Fore wings with three pale grayish spots along the costa, and with one at the tip of the discal areolet. Length of the body 5? lines; of the wings 17 lines.

a. ———?

Genus SIMENA.

Mas. Corpus gracile. Proboscis capitis latitudine multo longior. Palpi porrecti, caput non superantes; articulus 3us conicus, obtusus. Antennæ sat late pectinatæ, corporis dimidio longiores. Abdomen alas posticas paullo superans. Pedes validi; tibiæ posticæ dilatatæ, quadricalcaratæ. Alæ latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore sat obliquo.

Male. Body slender. Proboscis much longer than the breadth of the head. Palpi porrect, not extending beyond the head; third joint conical, minute, obtuse. Antennæ rather deeply pectinated, more than half the length of the body. Abdomen extending a little beyond the hind wings. Legs stout; hind tibiæ dilated, with four spurs; middle spurs long; apical pair short. Wings broad. Fore wings almost straight in front, rounded at the tips, rather oblique along the exterior border; three inferior veins; second nearly thrice further from the third than from the first.

1. SIMENA LUCTIFERA.

Mas. *Purpureo-cinerea; caput et thorax anticus lutea; antennæ nigræ; alæ anticæ fascia lata alba.*

Male. Purplish gray. Head and fore part of the thorax luteous. Proboscis tawny. Antennæ black. Fore wings with a broad white band, which decreases in breadth towards the interior angle. Length of the body 9 lines; of the wings 21 lines.

Mexico. In Mr. Saunders' collection.

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REDOA? COMES.

Mas. *Alba; alæ anticæ fasciis quatuor obliquis glauco-albis.*

Idalia comes, (*Phalæna Vera, Hypogymnia subsquammata*), *Geyer, Samml. Exot. Schmett.* 16, 324, f. 647, 648.

Brazil.

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LÆLIA? SOCRUS.

Mas. *Testacea; alæ anticæ cervinæ, dimidio fere apicali fusco macula cervina, subtus testaceæ apice fuscæ.*

Gynaephora Socrus, (*Phalæna Vera, Dasychira colorata*), *Geyer, Zutr. Samml. Exot. Schmett.* 12, 419, f. 837, 838.

Java.

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LEUCOMA BREVICORNIS.

Mas. *Cervina; antennæ breves; thorax anticus et pedes antici albi; alæ latæ.*

Male. White. Body and legs fawn-colour. Antennæ short. Thorax in front and fore legs white. Wings broad. Length of the body 7 lines; of the wings 17 lines.

a. Hong Kong. Presented by Colonel Champion.

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EUPROCTIS ARGYRORRHŒA.

Mas. *Alba; abdominis segmenta testaceo marginata.*

Euproctis argyrorrhœa, (*Phalæna Vera, Leucoma alba*), *Hübn. Samml. Exot. Schmett.* ii. 13, 123, f. 245, 246.

Surinam.

EUPROCTIS ARGENTIFLUA.

Mas et fœm. *Alba; alæ cervino ex parte marginatæ, anticæ gutta postica marginali nigricante.* Mas.—*Alæ anticæ gutta postica submarginali rufescente.*

Euproctis argentiflua, *Hübn. Samml. Exot. Schmett. Add. Lep.* iii. *Bomb.* ii. *Veræ*, iii. *Leucomæ A. Albæ.* 2.

Cuba.

EUPROCTIS? PELLUCIDA.

Mas. *Glauca; abdomen fusco fasciatum; alæ albæ, nigro venosæ, marginibus et anticarum apicibus nigro-fuscis.*

Liparis pellucida, (*Phalæna Vera, Hypogymna subsquammata*), *Hübn. Samml. Exot. Schmett.* ii. 17, 137, f. 273, 274.

Surinam.

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EUPROCTIS OCHROPODA.

Candida; palpi, pedes antici tarsique posteriores ochracei; antennæ nigræ.

Liparis ochropoda, *Eversm. Bull. Soc. Imp. Nat. Mosc.* xx. 3, 76, 10, pl. 5, f. 1—3.

Asiatic Russia.

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EUPROCTIS? FLAVATA.

Lutea; alæ posticæ testaceæ, luteo venosæ et ciliatæ.

Phalæna-Bombyx flavata, *Cram. Pap. Exot.* iv. 307, f. C.
Antarctia flava, *Hübn. Verz. Schmett.* 191, 1967.

Samarang, Java.

EUPROCTIS? ICILIA.

Testacea; alæ anticæ striga basali ferruginea, fascia obliqua exteriore fusca; guttis exterioribus unaque discali nigris.

Phalæna-Bombyx Icilia, *Stoll. Cram. Pap. Exot.* v. 158, pl. 35, f. 5.
Bombyx arenacea, *Linn.??* See page 1150.
Nygmia arenacea, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Heteromorphæ Umbrosæ*), 193, 1983.

Tranquebar.

EUPROCTIS? ALBINA.

Alba; abdomen flavum; alæ anticæ macula oblonga nigra.

Phalæna-Bombyx Albina, *Cram. Pap. Exot.* iv. 234, pl. 398, f. E.
Nygmia Albina, *Hübn. Verz. Schmett.* 193, 1985.

Japan.

EUPROCTIS? HELLADIA.

Mas. *Testacea; alæ anticæ vitta subcostali cervina, gutta discali nigra strigaque obliqua postica fusca; posticæ albidæ.*

Phalæna-Bombyx Helladia, *Cram. Pap. Exot.* iv. 234, pl. 398, f. H.
Nygmia Helladia, *Hübn. Verz. Schmett.* 193, 1984.
Japan.

EUPROCTIS GAMMA.

Fœm. *Pallide lutea; antennæ albidæ; abdomen testaceum; alæ anticæ fascia obliqua nigra albo conspersa et marginata necnon antice abbreviata et furcata, guttaque submarginali nigra; posticæ pallide testaceæ.*

Female. Pale luteous. Antennæ whitish. Abdomen testaceous, darker at the tip. Fore wings with a white-sprinkled and bordered oblique black band, which is shortened and forked in front; a black submarginal dot at a little in front of the middle of the exterior border; under side paler, with a brownish disk. Hind wings pale testaceous. Length of the body 8 lines; of the wings 22 lines.

a. North India. From Capt. Reid's collection.

EUPROCTIS PLANA.

Mas. *Testacea; alæ anticæ gutta discali nigra.*

Male. Testaceous. Fore wings with a black dot at the tip of the discal areolet. Length of the body 8 lines; of the wings 22 lines.

a. North India. From Mr. James' collection.

EUPROCTIS MARGINALIS.

Mas. *Alba; antennæ ramis nigricantibus; abdomen apice luteum; alæ anticæ subtus apud costam fuscescentes.*

Male. White. Antennæ with blackish branches. Abdomen luteous at the tip. Fore wings brownish beneath along the costa. Length of the body 4 lines; of the wings 12 lines.

a. North India. From Mr. Stevens' collection.

EUPROCTIS LUNATA.

Var. Mas. *Alba; abdominis dorsum luteum, basi apiceque album; alæ anticæ litura discali arcuata nigra; posticæ subtestaceæ, gutta discali ferruginea.*

Male. White. Proboscis and branches of the antennæ testaceous. Abdomen luteous above, white at the base and at the tip. Fore wings with a curved black mark at the tip of the discal areolet. Hind wings with a slight testaceous tinge, and with a ferruginous discal dot. Length of the body 5 lines; of the wings 15 lines.

Hindostan. In Mr. Saunders' collection.

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STILPNOTIA PURA.

Mas. *Candida; alæ anticæ linea obliqua indistincta pallide fuscescente.*

Male. Pure white. Fore wings with an indistinct pale brownish line, which proceeds from near the tips to the middle of the interior border. Length of the body 4 lines; of the wings 12 lines.

a. Santarem. From Mr. Bates' collection.

STILPNOTIA SORDIDA.

Fœm. *Albida; caput et thorax anticus testacea; antennæ ramis nigris; abdomen apicem versus pallide luteum.*

Female. White, slightly dingy. Head and fore part of the thorax testaceous. Antennæ with black branches. Abdomen pale luteous towards the tip. Length of the body 6 lines; of the wings 18 lines.

a. Silhet. Presented by E. Doubleday, Esq.

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TEARA? CONTRISTIS.

Mas. *Testacea; abdomen nigrum, ventre apice guttisque dorsalibus testaceis; alæ anticæ ocello discali, margine antico fasciisque apicalibus subocellaribus fuscis, guttisque subapicalibus albis; posticæ nigræ, testaceo marginatæ.*

Epicoma contristis, (*Phalæna Vera, Leucoma undata*), *Hübn. Samml. Exot. Schmett.* ii. 9, 109, f. 217, 218.

New Holland.

TEARA? TERMINALIS.

Mas. *Fusca; antennæ mediocriter pectinatæ, corporis dimidio longiores; thoracæ plaga discali maculisque duabus lateralibus albidis; abdomen luteum, nigro fasciatum; pedes cani; tarsi nigri, fasciis canis; alæ mediocriter latæ; anticæ nigro conspersæ trimaculatæ et bifasciatæ; posticæ albidæ, linea submarginali cinerea.*

Male. Brown, paler beneath. Antennæ tawny, moderately pectinated, more than half the length of the body. Thorax whitish in the middle, and at the base of each fore wing. Abdomen luteous, with black bands. Legs hoary; tarsi black, with hoary bands. Wings moderately broad. Fore wings with two slight indistinct black bands, and with black speckles, which are here and there confluent and form three black spots; two of the spots subcostal, the third exterior, discal, and smaller than the others. Hind wings whitish, with a cinereous submarginal line, and with blackish hairs along the interior border. Length of the body 7½ lines; of the wings 20 lines.

a. Moreton Bay. From Capt. Parry's collection.

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Genus CISPIA?

Corpus gracile. Proboscis non conspicua. Palpi mediocriter longi, caput superantes; articulus 3us lanceolatus, 2i dimidio brevior. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam subconvexæ, apice vix angulatæ. *Mas.*—Antennæ late pectinatæ. Alæ posticæ abdomen non superantes. *Fœm.*—Antennæ subpectinatæ. Alæ posticæ abdomen superantes.

Body slender. Proboscis very short or obsolete. Palpi moderately long, extending beyond the head; second joint very much longer than the first; third lanceolate, not half the length of the second. Legs slender; hind tibiæ with four long spurs. Wings broad. Fore wings slightly convex along the costa, hardly angular at the tips; second inferior vein more than twice further from the third than from the first; third much further from the fourth than from the second. *Male.*—Antennæ deeply pectinated. Hind wings not extending beyond the abdomen. *Female.*—Antennæ slightly pectinated. Hind wings extending beyond the abdomen.

CISPIA? OBLIQUA.

Pallide testacea; palpi et pedes antici supra nigricantes; alæ anticæ fascia perobliqua pallide fusca, posticæ albidæ.

Pale testaceous. Palpi and anterior legs blackish above. Fore wings with a pale brown very oblique band interrupted by the veins, and extending from near the tips to the middle of the interior border. Hind wings whitish. Length of the body 6—7 lines; of the wings 14—24 lines.

a—c. Sierra Leone. Presented by the Rev. D. F. Morgan.

Genus SOMENA.

Mas. Corpus sat gracile. Proboscis non conspicua. Palpi porrecti, graciles, caput sat superantes; articulus 2us 3o duplo longior; 3us elongatus. Antennæ late pectinatæ, thorace paullo longiores. Abdomen alas posticas non superans. Pedes graciles, anteriores ciliati; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore mediocriter obliquo, interiore setis erectis armato.

Allied to *Cispia*. *Male.*—Body rather slender. Proboscis not visible. Palpi porrect, slender, extending some distance beyond the head; third joint elongate, about half the length of the second. Antennæ deeply pectinated, a little longer than the thorax. Abdomen not extending beyond the hind wings. Legs slender; anterior legs ciliated; hind tibiæ with four long spurs. Wings broad. Fore wings very slightly convex in front, rounded at the tips, moderately oblique along the exterior border, with long vertical bristles along the interior border; second inferior vein nearer to the first than to the third; third about twice further from the fourth than from the second.

SOMENA SCINTILLANS.

Mas. *Testacea; caput subluteum; thorax et abdomen fusca, hoc apice luteum; alæ anticæ disco fusco tuberculis nigris, apud marginem exteriorem argenteo squamosæ.*

Male. Testaceous. Head somewhat luteous. Thorax and abdomen brown, the latter with a luteous tip. Disk of the fore wings brown, wholly studded with black tubercles, and adorned with silvery spangles along its exterior side, where the brown hue

forms two branches. Length of the body 4 lines; of the wings 10 lines.

a. North India. From Capt. Reid's collection.

Genus ANDRIASA.

Mas. Corpus sat validum. Proboscis non conspicua. Palpi incrassati, ascendentes, obtusi, pilosi; articulus 3us minimus. Antennæ subpectinatæ, pilosæ, thorace paullo longiores. Abdomen alas posticas paullo superans. Pedes validi, pilosi. Alæ latæ; anticæ apice angulatæ, apud costæ apicem subconvexæ, margine exteriore sat obliquo.

Allied to *Dasychira*. *Male.*—Body moderately stout. Proboscis not visible. Palpi ascending, pilose, obtuse, very thick; third joint very short. Antennæ a little longer than the thorax, slightly pectinated; each branch accompanied by several hairs. Abdomen extending a little beyond the hind wings. Legs stout, pilose. Wings broad. Fore wings slightly convex in front towards the tips, which are somewhat angular, rather oblique along the exterior border; three inferior veins, second more than twice further from the third than from the first.

ANDRIASA CONTRARIA.

Mas. *Testacea; palpi fuscescentes; alæ lineis duabus transversis obliquis subundulosis fuscis, anticæ lineis duabus basim versus transversis strigaque fuscis.*

Male. Testaceous, paler beneath. Palpi somewhat brownish. Wings with two slender oblique slightly undulating brown bands. Fore wings with two other bands nearer the base, the second connected with the inner one of the exterior bands by a brown streak in the disk. Length of the body 10 lines; of the wings 24 lines.

a. ——— ? From Mr. Milne's collection.

Genus ANDRIASA?

Fœm. Corpus sat robustum. Proboscis non conspicua. Palpi crassi, porrecti, pilosi, caput vix superantes; articulus 3us minutus. Antennæ mediocriter pectinatæ, thorace non longiores. Abdomen alas posticas paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor longis. Alæ latæ; anticæ apud costam subrectæ, apice angulatæ, margine exteriore vix obliquo.

Female. Body moderately stout. Proboscis not visible. Palpi porrect, pilose, very stout, hardly extending beyond the head; third joint minute. Antennæ moderately pectinated, as long as the thorax. Abdomen extending a little beyond the hind wings. Legs stout, pilose; hind tibiæ with four long spurs. Wings broad. Fore wings almost straight along the costa, rectangular at the tips, very slightly oblique along the exterior border; three inferior veins, first and second nearly contiguous at the base; third rather remote.

ANDRIASA? MARGINALIS.

Fœm. *Testacea, subtus albida; palpi supra nigri; alæ lineis duabus undulosis transversis fuscis, anticæ fusco conspersæ lunulis marginalibus fuscis signatæ.*

Female. Pale testaceous, whitish beneath. Palpi black above. Wings with two undulating transverse brown lines, which are indistinct in the hind wings. Fore wings minutely speckled with brown, adorned with brown lunules between the veins along the exterior border. Length of the body 8 lines; of the wings 18 lines.

a. Brazil. From Mr. Stevens' collection.

Genus COLABATA.

Fœm. Corpus robustum. Proboscis non conspicua. Palpi validi, porrecti, subtus pilosissimi, caput vix superantes; articulus 3us minutus. Antennæ subpectinatæ, thorace paullo breviores. Abdomen alas posticas superans. Pedes validi, pilosi. Alæ latæ; anticæ apud costam subconvexæ, apice angulatæ, margine exteriore subdenticulato mediocriter oblique.

Allied to *Nadata. Female.*—Body stout. Proboscis not visible. Palpi stout, porrect, very pilose beneath, hardly extending beyond the head; third joint minute. Antennæ very slightly pectinated, a little shorter than the thorax. Abdomen extending somewhat beyond the hind wings. Legs stout, pilose. Wings broad. Fore wings slightly convex in front, rectangular at the tips, moderately oblique and slightly denticulated along the exterior border; three inferior veins; first and second nearly contiguous at the base; third remote.

COLABATA LINEOSA.

Fœm. *Albida; caput et palpi supra nigricantia; abdomen vitta dorsali cervina; thorax et pedes fusco conspersi; alæ testaceæ, lineis duabus transversis undulosis fuscis; anticæ fusco conspersæ, ex parte luteæ, apud costam albidæ, lineis duabus basim versus transversis undulosis fuscis.*

Female. Whitish. Head and palpi blackish above. Abdomen with a fawn-coloured dorsal stripe. Thorax and legs minutely streaked with brown. Wings testaceous, with two slender undulating brown bands. Fore wings minutely speckled with brown, here and there luteous, whitish along the costa, with two slender undulating brown bands towards the base. Length of the body 10 lines; of the wings 24 lines.

Brazil. In Mr. Saunders' collection.

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DASYCHIRA ROSSII.

Larva with tawny hairs, and furnished with two black dorsal tufts, between which there is a luteous one.

a—g. (*e—g.* larva). Winter Cove and Cambridge Bay, Arctic America. Presented by Capt. Collinson, R. N., H.M.S. Enterprise.

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DASYCHIRA INCLUSA.

Mas. *Corpus sat gracile. Palpi validi, pilosi, obtusi, caput sat superantes. Antennæ lattissime pectinatæ, corporis dimidio æquales. Abdomen alas posticas paullo superans. Pedes antici validi, dense pilosi; posteriores graciles; tibiæ posticæ calcaribus quatuor longiusculis. Alæ latæ, non longæ; anticæ apud costam subconvexæ, apice subangulatæ, margine exteriore subconvexo vix obliquo.*

Male. Body rather slender. Palpi stout, pilose, obtuse, extending somewhat beyond the head. Antennæ extremely deeply pectinated, about half the length of the body. Abdomen extending for one-fourth of its length beyond the hind wings. Fore legs stout, thickly pilose; posterior legs slender; hind tibiæ with four rather long spurs. Wings broad, not long. Fore wings slightly

convex in front, almost angular at the tips, very slightly convex, and hardly oblique along the exterior border.

Fœm. *Corpus sat robustum. Palpi graciliores. Antennæ subpectinatæ, thorace paullo longiores. Abdomen alas posticas triente superans. Alæ longiusculæ; anticæ apud costam plus convexæ, margine exteriore plus obliquo.*

Female. Body rather stout. Palpi more slender than those of the male. Antennæ very minutely pectinated, a little longer than the thorax. Abdomen extending for one-third of its length beyond the hind wings. Wings rather long. Fore wings more convex in front than those of the male, and more oblique along the exterior border.

Obscure cervina; alæ anticæ nigro punctatæ. Mas.—*Alæ anticæ apud marginem exteriorem fusco nebulosæ, litura discali albida strigisque duabus angulosis transversis nigris.* Fœm. —*Alæ anticæ apud discum cinerascentes, fascia obliqua cervina fusco marginata, litura discali fusca.*

Dull fawn-colour, pale beneath. Abdomen and hind wings paler than the thorax and the fore wings. *Male.*—Fore wings clouded with brown along the exterior border, thinly flecked with black; a whitish mark in the disk, and two slender zigzag transverse black streaks. *Female.*—Paler than the male. Fore wings flecked with black; disk mostly gray; this hue is interrupted by an oblique and irregular fawn-coloured band, which is bordered with dark brown; discal mark dark brown. Length of the body 6—14 lines; of the wings 9—22 lines.

a, *b*. Java.

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DASYCHIRA LEUCOPHÆA.

Cristata; alæ fuscæ, anticæ striga lata albida, basi lineola nigra, puncto anguli postici albo.

Phalæna leucophæa, *Abbot and Smith, Nat. Hist. Lep. Ins. Georgia*, ii. 155, pl. 78.

a. Georgia. From Mr. Milne's collection.

Dasychira albicans.

Mas et fœm. *Albida, subtus plus minusve cinerea; alæ gutta discali fusca, anticæ fasciis nonnullis indistinctis angustis undulosis pallide cervinis.* Mas.—*Alæ posticæ cinereo marginatæ.* Fœm.—*Alæ posticæ subcinereæ.*

Male and female. Whitish, more or less cinereous beneath. Wings with a discal brown dot. Fore wings with several indistinct slender undulating pale fawn-coloured bands. *Male.*—Hind wings with somewhat cinereous borders. *Female.*—Hind wings slightly cinereous. Length of the body 5—8 lines; of the wings 14—22 lines.

a. Celebes. From Madame Ida Pfeiffer's collection.

Dasychira antica.

Fœm. *Albida; caput supra luteum; thorax fusco unifasciatus; abdomen fasciis roseis; pedes nigri, tibiis posticis albo pilosis; alæ anticæ pallide fuscæ, costa fasciaque exteriore angusta obliqua angulosa albidis, lituris costalibus nigricantibus guttaque discali fusca; posticæ marginibus pallidissime fuscis.*

Female. Whitish. Head luteous above. Antennæ black. Thorax with a brown band. Abdomen with rosy bands. Legs mostly black; hind tibiæ with white hairs. Fore wings pale brown, whitish along the costa, and with an exterior slender oblique zigzag whitish band; some dark brown or blackish marks along the costa; one of these is lengthened hindward, and forms an angular streak across the tip of the discal areolet, which has a brown dot in its middle. Hind wings with very pale brown borders. Length of the body 8 lines; of the wings 22 lines.

a. Java. From the East India Company's collection.

Dasychira atomaria.

Mas. *Pallide cervina; antennæ albidæ ramis fuscis; alæ anticæ nigro conspersæ et biguttatæ, fascia exteriore angusta obliqua fusca antice furcata; posticæ sordide albidæ.*

Male. Pale fawn-colour. Antennæ whitish, with brown branches. Fore wings speckled with black, and with two black dots, one at the base, the other on the tip of the discal areolet;

beyond the latter there is a slender oblique brown band, which is forked in front. Hind wings dingy whitish. Length of the body 5½ lines; of the wings 14 lines.

a. ———?

DASYCHIRA HERBIDA.

Mas. *Viridescens, subtus albido-testacea; palpi supra nigricantes; abdomen albido-testaceum; alæ anticæ nigro punctatæ, strigis transversis costalibus albidis; posticæ albido-testaceæ, fusco late marginatæ.*

Male. Greenish, whitish testaceous beneath. Palpi blackish above. Antennæ blackish, with tawny branches. Abdomen whitish testaceous. Fore wings thinly flecked with black; some transverse whitish marks along the costa. Hind wings whitish testaceous, with broad brown borders. Length of the body 10 lines; of the wings 22 lines.

South Africa. In Mr. Saunders' collection.

DASYCHIRA? PERSPICILLA.

Mas. *Straminea; alæ anticæ plaga magna discali subocellari fusca nigro alboque lineata.*

Phalæna-Bombyx perspicilla, *Stoll. Cram. Pap. Exot.* 74, pl. 16, f. 3.

Parathyris perspicilla, *Hübn. Verz. Schmett.* (*Phalæna Veræ Herææ Dilucidæ*), 158, 1641.

Surinam.

DASYCHIRA? NETRIX.

Pallide lutea; abdominis latera alba; alæ anticæ basi fasciisque duabus albis; posticæ albæ.

Phalæna-Bombyx Netrix, *Cram. Pap. Exot.* iv. 35, pl. 307, f. B.

Gynaephora Netrix, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Dasychiræ Coloratæ*), 161, 1673.

Surinam.

DASYCHIRA? HIPPARCHIA.

Fœm. *Ferruginea; alæ anticæ fuscæ fasciis variis obliquis pallide ferrugineis.*

Phalæna Hipparchia, *Cram. Pap. Exot.* ii. 135, pl. 185, f. D.

Surinam.

DASYCHIRA? EPHORA.

Fusca; abdomen rufescens, fasciis fuscis; alæ anticæ fasciis variis fuscis; posticæ rufescentes, fasciis duabus fuscis.

Phalæna-Bombyx Ephora, *Cram. Pap. Exot.* iv. 110, pl. 347, f. D.

Surinam.

DASYCHIRA? CINEREA.

Cinerea; thorax fascia arcuata albida; abdomen canum, maculis dorsalibus nigris; alæ anticæ macula discali albida. Mas.—*Alæ fasciis duabus guttisque marginalibus albidis; posticæ albæ, cinereo marginatæ.* Fœm.—*Alæ anticæ albido quadrifasciatæ; posticæ pallidiores, fascia albida nigro marginata.*

Phalæna-Bombyx cinerea, *Anon. Ins. Surinam*, i. 21, pl. 7.

Larva gregarious.

Surinam.

DASYCHIRA? AMYNTA.

Rufescens; alæ anticæ apices versus pallidiores, fascia latissima flava, strigis duabus anticis guttisque duabus exterioribus, una antica altera postica nigris, posticæ margine antico fusco.

Phalæna-Bombyx Amynta, *Cram. Pap. Exot.* iv. 33, pl. 306, f. C.

Surinam.

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LYMANTRIA? DEMORTUA.

Mas. *Alba; alæ flavescente marginatæ.*

Liparis demortua, (*Phalæna Vera, Hypogymna subsquammata*), *Hübn. Samml. Exot. Schmett.* iii. 23, 241, f. 481, 482.

Isle St. Thomas.

LYMANTRIA? VISUM.

Mas. *Cervina; alæ albæ, anticæ plus dimidio costali cervino-fuscescentes.*

Liparis visum, (*Phalæna Vera, Hypogymna subsquammata*), *Hübn. Samml. Exot. Schmett.* iii. 33, 272, f. 543, 544.

Monte Video.

LYMANTRIA? ELEUTHERA.

Straminea; antennæ subpectinatæ; abdomen fulvum; alæ anticæ strigis transversis duplicatis cervinis, fasciis duabus maculaque exteriore fuscis; posticæ subroseæ, stramineo marginatæ.

Phalæna-Bombyx Eleuthera, *Cram. Pap. Exot.* iv. pl. 371, f. A.

Surinam.

Page 923.

For Alæ anticæ apud costam latæ.
Read Alæ anticæ latæ, apud costam vix convexæ.

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DREATA FABIA.

Bombyx Fabia, *Oliv. Enc. Méth. Ins.* v. 38, 51.
Eupterote Fabia, *Hübn. Verz. Schmett.* 187, 1933.

REDOA? REGINA.

Idalia Regina, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Platypterices Rotundatæ*), 149, 1566.

Genus NAXA.

Mas. Corpus gracillimum. Proboscis non conspicua. Palpi brevissimi. Antennæ mediocriter pectinatæ. Abdomen alas posticas non superans. Pedes gracillimi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ; anticæ apud costam subrectæ, margine exteriore mediocriter obliquo.

Allied to *Cimola*. *Male.*—Body very slender. Proboscis not visible. Palpi very short. Antennæ moderately pectinated, about half the length of the body. Abdomen extending as far as the hind

wings. Legs very slender; hind tibiæ with two extremely minute apical spurs. Wings broad. Fore wings almost straight in front, rounded at the tips, moderately oblique along the exterior border; second inferior vein much further from the third than from the first.

1. NAXA TEXTILIS.

Mas. *Candida; antennæ albidæ; genua nigra; tibiæ apice nigræ; alæ subnudæ, macula discali guttisque marginalibus duplicatis nigris.*

Male. Pure white. Antennæ whitish. Knees black. Tibiæ with black tips. Wings very thinly feathered, with a blackish spot on the tip of the discal areolet, and with two rows of blackish dots along the exterior border. Fore wings with three blackish dots near the base. Length of the body 6—8 lines; of the wings 16—22 lines.

a, b. Silhet. From the Rev. J. Stainforth's collection.
c, d. Silhet. From Mr. Sowerby's collection.
e, f. Silhet. Presented by E. Doubleday, Esq.
g. Silhet. From Mr. Stainforth's collection.
h. ———?

Genus ANTIPHELLA.

Corpus sat validum. Caput et thorax densissime pilosa. Proboscis non conspicua. Palpi pilosi, brevissimi. Pedes validi; tibiæ posticæ calcaribus duobus longiusculis apicalibus. Alæ latæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore mediocriter obliquo. *Mas.*—Antennæ mediocriter pectinatæ. Alæ amplæ. *Fœm.*—Antennæ subpectinatæ.

Body moderately stout. Head and thorax thickly clothed with long hairs. Proboscis not visible. Palpi pilose, very short. Antennæ longer than the thorax. Legs stout; hind tibiæ with two rather long apical spurs. Wings broad. Fore wings hardly convex in front, rounded at the tips; second inferior vein full four times further from the third than from the first; third much further from the fourth than from the second *Male.*—Antennæ moderately pectinated. Wings ample. *Female.*—Antennæ slightly pectinated. Spurs of the hind tibiæ longer than those of the male. Wings smaller; exterior border less oblique.

This genus in the Synopsis, p. 778, comes between *Pterolocera* and *Anthela*, but is much more nearly allied to *Lælia* and to *Leucoma*.

1. ANTIPHELLA CROCICOLLIS.

Testacea.

Liparis crocicollis, *Boisd.*
Aroa? crocicollis, p. 794.

a—h. Cape. Presented by R. W. Townsend, Esq.
i—k. South Africa. Presented by Dr. A. Smith.
l—n. Port Natal. From M. Gueinzius' collection.

Genus NAROMA.

Corpus robustum, pilosum. Palpi mediocriter longi, caput non superantes; articulus 2us 1o plus duplo longior; 3us conicus, minimus. Abdomen alas posticas non superans. Pedes longe pilosi; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ anticæ apud costam subconvexæ, apice rotundatæ. *Mas.*—Antennæ late pectinatæ. *Fœm.*—Antennæ sat late pectinatæ.

Body stout, hairy. Proboscis obsolete? Palpi moderately long, not extending beyond the head; second joint more than twice the length of the first; third conical, very minute. Abdomen not extending beyond the hind wings. Legs with long hairs; hind tibiæ with two apical spurs of moderate length. Fore wings rather narrow, very slightly convex along the costa, rounded at the tips; second inferior vein twice further from the third than from the first; third thrice further from the fourth than from the second. *Male.*—Antennæ deeply pectinated. *Female.*—Antennæ rather deeply pectinated.

The structure of the costal vein of the hind wings associates this genus with the *Arctiidæ*, but in other characters it is more allied to the *Liparidæ*.

1. NAROMA SIGNIFERA.

Mas et fœm. *Albido-cervina; caput apud oculos, palpi et pedes antici supra lutea; abdomen album, vitta basali pallide cervina; tarsi anteriores nigricantes, albo fasciati; alæ anticæ guttis discalibus fuscis; posticæ albæ.*

Male and female. Whitish fawn-colour. Head about the eyes, palpi and fore legs above luteous. Abdomen and hind wings white, the former with a pale fawn-coloured stripe towards the base. Anterior tarsi blackish, with white bands. Fore wings with brown dots along the hind border of the discal areolet, whose transverse

apical veinlet is luteous, with a brown dot at each end. Length of the body 6—7 lines; of the wings 14—22 lines.

a. Sierra Leone. Presented by the Rev. D. F. Morgan.
b. ——— ? Presented by H. F. Evans, Esq.
c. ——— ? Presented by E. Doubleday, Esq.

Genus TANADA.

Mas. Corpus sat gracile. Proboscis capitis latitudine longior. Palpi graciles, porrecti, pubescentes, caput superantes; articulus 3us minutus, conicus. Antennæ subpectinatæ. Abdomen alas posticas vix superans. Pedes graciles, longiusculi; tibiæ posticæ calcaribus quatuor longiusculis. Alæ angustæ, longiusculæ; anticæ apud costam subconvexæ, apice rotundatæ, margine exteriore sat obliquo.

Male. Body rather slender. Head and thorax with flat-lying hairs. Proboscis longer than the breadth of the head. Palpi slender, porrect, pubescent, moderately long, extending rather beyond the head; second joint longer than the first; third minute, conical. Antennæ slightly pectinated, almost half the length of the body. Abdomen pubescent, hardly extending beyond the hind wings. Legs slender, pubescent, rather long; hind tibiæ with two rather long spurs. Wings narrow, rather long. Fore wings rounded at the tips, slightly convex along the costa and along the exterior border, which is oblique; second inferior vein very near the first and the third; third more than six times further from the fourth than from the second.

This genus is perhaps as nearly allied to the *Lithosiidæ* as to the *Liparidæ*, and seems to connect the two families.

1. TANADA ANTICA.

Mas. *Testacea; palpi fuscescentes; thorax postice albus; abdomen e guttis nigris trivittatum, subtus album; pedes fusco strigati; alæ apud costam testaceæ.*

Male. Testaceous. Proboscis tawny. Palpi brownish. Antennæ white, with black branches. Hind part of the thorax mostly white. Abdomen with three rows of black dots; under side white. Legs streaked with brown. Wings, the fore wings especially, testaceous along the costa. Length of the body 5 lines; of the wings 15 lines.

a. Georgia. From Mr. Abbot's collection.

Genus EURYDA.

Mas. Corpus robustum. Palpi breves. Antennæ simplices, thorace longiores. Abdomen alas posticas non superans. Pedes validi; tibiæ posticæ calcaribus quatuor vix longis. Alæ mediocriter latæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore perobliquo.

Euryda, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i.

1. EURYDA VARIOLARIS.

Fœm. *Testacea; thorax fulvo bivittatus, postice rufescens; abdominis segmenta nigro fasciata; pedes rufescentes; alæ anticæ vitta ramosa fasciaque exteriore undulata perobliqua fuscis; posticæ nigricantes marginibus rufescentibus.*

Euryda variolaris, *Boisd. Herr.-Schæff. Lép. Exot. Sp. Nov. Sér.* i. f. 182.

Colombia.

Female. Testaceous. Antennæ brown, testaceous at the base. Thorax with two tawny stripes, reddish by the base of the abdomen. Abdomen with a black band on each segment. Legs mostly reddish. Fore wings with a dark brown ramose stripe, whose branches are mostly along the veins, and with an undulating exterior very oblique brown band. Hind wings blackish, with pale reddish borders. Length of the body 5 lines; of the wings 14 lines.

Brazil. In Mr. Saunders' collection.

Genus PHINECA.

Fœm. Corpus robustum. Proboscis non conspicua. Palpi longi, graciles, caput sat superantes; articulus 3us elongatus. Antennæ graciles, simplices, thorace longiores. Abdomen alas posticas dimidio superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ vix latæ; anticæ apud costam subrectæ, apice subrotundatæ, margine exteriore sat obliquo.

Female. Body stout. Proboscis not visible. Palpi long, slender, extending some distance beyond the head; third joint elongated. Antennæ slender, simple, longer than the thorax. Abdomen extending for about half its length beyond the hind wings. Legs rather stout and pilose; hind tibiæ with four moderately long spurs. Wings hardly broad. Fore wings almost straight in front,

slightly rounded at the tips, somewhat oblique along the exterior border; first and second inferior veins contiguous at the base; third rather remote from the second and from the fourth.

PHINECA BASISTRIGA.

Fœm. *Albida; abdomen cervinum; alæ ciliis fuscis albisque, anticæ basim versus fuscæ nigro strigatæ, striga media fusca, margine exteriore cinereo; posticæ pallidissime fuscæ.*

Female. Whitish. Abdomen fawn-colour. Wings with alternately brown and white ciliæ. Fore wings brown, with some transverse black streaks for more than one-third of the length from the base, grayish along the exterior border; a transverse brownish streak in the disk. Hind wings very pale brown. Length of the body 5 lines; of the wings 11 lines.

a. ——— ? From Mr. Milne's collection.

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Genus TYPHONIA.

Typhonioideæ, *Lederer, Verhandl. Zool. Botan. Vereins zu Wien*, ii.

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Genus GENDUARA.

Mas. Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ sat late pectinatæ, apices versus nudæ, thorace non longiores. Abdomen alas posticas paullo superans. Pedes validi; tibiæ posticæ calcaribus minutis apicalibus. Alæ mediocriter latæ; anticæ apud costam rectæ, apice subrotundatæ, margine exteriore perobliquo.

Male. Body stout. Proboscis not visible. Palpi extremely short. Antennæ rather deeply pectinated, bare towards the tips, as long as the thorax. Abdomen extending a little beyond the hind wings. Legs stout; hind tibiæ with minute apical spurs. Wings moderately broad. Fore wings straight in front, rounded slightly at the tips, very oblique along the exterior border; first and second inferior veins contiguous at the base; third rather remote from the second, much more remote from the fourth.

Larva inclosed in a case.

GENDUARA CINEREA.

Mas. *Cinerea; caput et thorax supra alba; abdomen apice album; alæ anticæ maculis duabus discalibus unaque apud marginem interiorem guttisque exterioribus nigris.*

Male. Gray. Head and thorax white above. Abdomen with a white tip. Fore wings with two black spots in the disk, and a third by the interior border, and some black dots along the exterior border. Length of the body 7 lines; of the wings 16 lines.

New South Wales. In Mr. Saunders' collection.

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CERURA BICUSPIS.

Phalæna furcula, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 141, pl. 71.

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Genus HOPLITIS.

Hybocampa, *Lederer, Verhandl. Zool. Botan. Vereins zu Wien.* ii.

Page 992.

CECRITA ALBIPLAGA.

Fœm. *Pallide fusca; palpi porrecti, caput paullo superantes; antennæ subpectinatæ, thorace non longiores; pedes sat graciles; tibiæ posticæ calcaribus quatuor mediocriter longis; alæ anticæ nigro conspersæ et trifasciatæ, apud costam subconvexæ, apice angulatæ, margine exteriore perobliquo, plaga media costali albida.*

Female. Pale brown. Palpi porrect, extending a little beyond the head. Antennæ minutely pectinated, not longer than the thorax. Abdomen not extending beyond the hind wings. Legs rather slender; hind tibiæ with four moderately long spurs. Fore wings slightly convex in front, somewhat angular at the tips, very oblique along the exterior border, with black freckles, and with three somewhat undulating oblique transverse lines of the same hue, first before one-third of the length, second beyond two-thirds of the length, third marginal; middle part whitish towards the costa. Length of the body 6 lines; of the wings 19 lines.

a. Nova Scotia. From Lieut. Redman's collection.

Page 1000.

NOTODONTA ANGUINA.

Fœm. *Cervina; thoracis discus cinereus; alæ anticæ ferrugineo-cervinæ, basi flavescentes, guttis nonnullis nigris, fascia margineque exteriore subalbidis.*

Phalæna anguina, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 167, pl. 84.

Datana? Anguina, p. 1062.

Georgia.

Page 1001.

NOTODONTA PLAGIATA.

Cinerea; caput, antennæ thoracisque macula discalis cervina; alæ anticæ vitta marginali fulva fusco ex parte marginata, strigis nonnullis discalibus et subapicalibus fuscis cervino marginatis, margine interiore nigro fasciculato; posticæ fasciis subobsoletis obscurioribus.

Gray. Head and antennæ fawn-colour. Thorax with a fawn-coloured spot in the disk. Fore wings with a fawn-coloured marginal stripe, which is widest along the interior border, and is partly bordered with brown; a few discal and subapical brown streaks, with fawn-coloured borders; interior border with a black tuft. Hind wings cinereous, with indistinct darker bands. Length of the body 9 lines; of the wings 20 lines.

———? In Mr. Saunders' collection.

Page 1016.

Genus ATRASANA.

Mas. Corpus robustum. Proboscis non conspicua. Palpi porrecti, pilosi, caput parvum superantes; articulus 3us minimus. Antennæ sat latè pectinatæ, trientè apicali simplices, thorace valde longiores. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor mediocriter longis. Alæ longiusculæ, sat angustæ; anticæ apud costam vix convexæ, apice subangulatæ, margine exteriore valde obliquo subdenticulato.

Allied to *Cetola*. *Male.*—Body stout. Proboscis not visible. Palpi porrect, pilose, extending very little beyond the head; third joint very minute. Antennæ very much longer than the thorax,

rather deeply pectinated to two-thirds of the length, simple from thence to the tips. Legs stout, pilose; hind tibiæ with four moderately long spurs. Wings rather long and narrow. Fore wings very slightly convex in front, slightly angular at the tips, very oblique and slightly denticulated along the exterior border; three inferior veins, second full four times further from the third than from the first.

ATRASANA POSTICA.

Mas. *Fusca; alæ anticæ nubeculosæ, fascia lata media obliqua albida e lineis undulatis fuscis strigatæ, striga postica subarcuata nigricante extus albido marginata; posticæ albæ, marginibus fuscis apud angulum interiorem obscurioribus latioribus.*

Male. Brown. Fore wings somewhat mottled, middle part with a broad oblique whitish band, which contains undulating transverse brown streaks; a slightly curved blackish streak, with a whitish exterior margin, proceeds from near the tip of the interior border to the middle of the exterior border. Hind wings white, with brown borders, which are dilated and darker by the interior angle. Length of the body 8? lines; of the wings 26 lines.

a. Port Natal. From M. Gueinzius' collection.

Page 1036.

BRACHIONYCHA? PUNCTULATA.

Mas. *Cinerea; palpi porrecti, caput paullo superantes; antennæ mediocriter pectinatæ; thorace non longiores; tibiæ posticæ calcaribus quatuor sat longis; alæ fusco conspersæ, anticæ lituris nonnullis costalibus obscurioribus.*

Described from an injured specimen.

Male. Cinereous. Palpi porrect, extending a little beyond the head. Antennæ moderately pectinated, not longer than the thorax. Hind tibiæ with four moderately long spurs. Wings closely flecked with brown. Fore wings with some transverse darker brown marks along the costa. Hind wings paler than the fore wings. Length of the body 6 lines; of the wings 18 lines.

a. South Africa. Presented by Dr. A. Smith.

Page 1040.

CNETHOCAMPA NEOGENA.

Fusca; alæ anticæ macula media serieque duplici lunularum cohærentium ante limbum cum alis posticis cinereis.

Gastropacha neogena, *Fisch. Suppl.* 71, 72. *Herr.-Schæff. Samml. Eur. Schmett. Suppl.* ii. *Text*, 108, 29.

Bombyx neogena, *Boisd. Gen. et Ind. Méth.* 70, 570.

Var.? Bombyx herculeana, *Ramb. Faun. Andalus.*

Ural Region. South Spain.

Page 1059.

ICHTHYURA INCLUSA.

Ichthyura inclusa (*Phalæna Vera, Melalopha Certa*), *Hübn. Samml. Exot. Schmett.* iii. 36, 281, f. 561, 562.

Pennsylvania.

Page 1062.

DATANA? AURORA.

Hyparpax Aurota, *Hübn. Samml. Exot. Schmett.* ii. *Lep. i. Phal.* i. *Sphing.* iii. *Andriæ* C. *Aemulantes*, i. f. 1—4.

Page 1068.

LUGURA? MEGALOPS.

Mas et fœm. *Fusca; alæ anticæ obscure fuscæ, basi margine exteriore pallidis, vittis basalibus strigisque transversis nigris, ocelloque nigro albo marginato; posticæ margine lato nigricante.* Mas.—*Antennæ bis bicute pectinato; alæ posticæ albidæ.* Fœm.—*Antennæ simplices; alæ posticæ cinereæ.*

Phalæna-Bombyx Megalops, *Anon. Ins. Surinam*, i. 55, pl. 24.

Surinam.

Larva gregarious, feeds on the leaves of *Inga vera*.

Page 1070.

NIODA? MENDOSA.

Fœm. *Fusca; abdomen cinereum, linea dorsali nigra; alæ anticæ pallide fuscæ fascia media post medium angulata et effusa, striga obliqua postica subapicali cinerea; posticæ cinereæ.*

Olene mendosa (*Phalæna Vera, Dasychira canescens*), *Hübn. Samml. Exot. Schmett.* iii. 19, 147, f. 293, 294.

Java.

Page 1077.

TIFAMA? PUNCTATA.

Fusca; alæ anticæ guttis variis ocelloque subquadrata discali nigris; posticæ ferrugineæ plaga discali subcinerea.

Phalæna-Bombyx punctata, *Cram. Pap. Exot.* iv. 36, pl. 307, f. F.

Surinam.

TIFAMA? THARIS.

Fusca; abdomen apice testaceum; alæ anticæ maculis costalibus testaceis, postice testaceæ fusco maculatæ.

Phalæna-Bombyx Tharis, *Cram. Pap. Exot.* iv. 38, pl. 308, f. D.
Disphragis Tharis, *Hübn. Verz. Schmett.* 194, 1988.

Surinam.

Page 1091.

Genus PHECADA.

Mas. Corpus vix robustum. Proboscis non conspicua. Palpi mediocriter longi, sat graciles, caput vix superantes; articulus 3us conicus, brevissimus. Antennæ late pectinatæ, thorace multo longiores. Pedes validi; tibiæ posticæ calcaribus quatuor longiusculis. Alæ latæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore vix convexo parum obliquo; posticæ abdomen non superantes.

Allied to *Parathyris*. *Male.*—Body hardly stout. Proboscis not visible. Palpi moderately long, rather slender, hardly extending beyond the head; third joint conical, very short. Antennæ

deeply pectinated, much longer than the thorax. Legs stout; hind tibiæ with four rather long spurs. Wings broad. Fore wings straight in front, acuminated at the tips, hardly convex and but slightly oblique along the exterior border; second inferior vein nearer to the first than to the third; third nearer to the second than to the fourth. Hind wings hardly extending as far as the abdomen.

1. PHECADA CONFINIS.

Mas. *Cervina; vertex albidus; antennæ albidæ, ramis fuscis; alæ nitentes, anticæ fasciis tribus latiusculis subundulosis pallide cinereis.*

Male. Fawn-colour, paler beneath. Vertex of the head whitish. Antennæ whitish, with brown branches. Wings shining. Fore wings with three rather broad slightly undulating pale grayish bands. Length of the body 9 lines; of the wings 28 lines.

a. Rio Janeiro. From Mr. Stevens's collection.

2. PHECADA? METABUS.

Corpus cervinum; antennæ nigræ; alæ fuscæ.

Antarctia Metabus, *Hübn. Verz. Schmett.* 191, 1966.
Phalæna-Bombyx Metabus, *Cram. Pap. Exot.* i. 117, pl. 74, f. D.

Previously mentioned as one of the *Saturniidæ*. See p. 1381.
Surinam.

Page 1101

Genus PYDNA.

Mas. Corpus sat gracile. Proboscis brevissima. Palpi validi, longiusculi, subtus dense pilosi, caput superantes. Antennæ late pectinatæ. Abdomen alas posticas triente superans. Pedes validi; tibiæ posticæ calcaribus duobus longis apicalibus. Alæ mediocriter latæ; anticæ apud costam rectæ, apice acuminatæ; margine exteriore subobliquo.

Male. Body rather slender. Proboscis very short. Palpi stout, rather long, extending some distance beyond the head; thickly pilose beneath; third joint elongate, not half the length of the second. Antennæ deeply pectinated, much longer than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Legs stout; hind tibiæ with two long apical spurs. Wings moderately broad. Fore wings straight in front,

acuminated at the tips. slightly oblique along the exterior border; second inferior vein full six times further from the third than from the first.

1. PYDNA TESTACEA.

Mas. *Testacea; caput supra album, bifasciculatum; palpi albidi, supra fusci; abdomen subtus album, lateribus fuscescentibus; alæ pallide cervinæ, subtus albidæ, anticæ apud marginem posticum flavescentes.*

Male. Testaceous. Head white above, with a tuft at the base of each antenna. Palpi whitish, brown above, except towards the tips. Abdomen brownish along each side, white beneath. Wings pale fawn-colour, whitish beneath. Fore wings slightly yellowish hindward, white about the exterior border. Length of the body 10 lines; of the wings 22 lines.

Hindostan. In Mr. Saunders' collection.

Genus BIRETA.

Mas. Corpus sat gracile. Proboscis non conspicua. Palpi validi, pilosi, porrecti, caput paullo superantes; articulus 3us breviconicus. Antennæ mediocriter pectinatæ. Abdomen alas posticas paullo superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor longis. Alæ latiusculæ; anticæ apud costam subconvexæ, apice acuminatæ, margine exteriore recto sat obliquo.

Male. Body rather slender. Proboscis not visible. Palpi stout, pilose, porrect, extending a little beyond the head; third joint short-conical, not one-fourth of the length of the second. Antennæ moderately pectinated, longer than the thorax. Abdomen extending a little beyond the hind wings. Legs stout, pilose; hind tibiæ with four long spurs. Wings rather broad. Fore wings very slightly convex in front, acuminated at the tips, straight and rather oblique along the exterior border; second inferior vein nearer to the first than to the third.

1. BIRETA LONGIVITTA.

Mas. *Testacea; caput et thorax anticus fulva; palpi supra fuscescentes; abdomen supra fuscescens vittis duabus interruptis obscurioribus; alæ anticæ vitta discali subarcuata fasciisque tribus perobliquis guttularibus fulvis; posticæ supra pallidissime fuscæ.*

Male. Testaceous. Head and fore part of the thorax somewhat tawny. Palpi brownish above. Abdomen pale brownish above, with a slender interrupted darker stripe along each side. Fore wings with a slender very slightly curved tawny stripe, extending along the whole length, and with three very oblique bands of tawny dots. Hind wings very pale brown above. Length of the body 8 lines; of the wings 20 lines.

Hindostan. In Mr. Saunders' collection.

Genus EDEBESSA.

Fœm. Corpus robustum. Proboscis non conspicua. Palpi brevissimi. Antennæ subpectinatæ, thorace paullo longiores. Abdomen alas posticas superans, apice dense lanuginosum. Pedes validi; tibiæ posticæ calcaribus duobus minimis apicalibus. Alæ anticæ longiusculæ, sat angustæ, apud costam subconvexæ; apice vix acuminatæ, margine exteriore perobliquo.

Much resembles the genus *Anodonta*. *Female.*—Body stout. Proboscis not visible. Palpi very short. Antennæ minutely pectinated, a little longer than the thorax. Abdomen extending rather beyond the hind wings, thickly lanuginose at the tip. Legs stout; hind tibiæ with two very minute apical spurs. Fore wings rather long and narrow, very slightly convex in front, hardly acuminated at the tips, extremely oblique along the exterior border; second inferior vein more than twice further from the third than from the first; third more than twice further from the fourth than from the second.

1. EDEBESSA PURENS.

Fœm. *Rufa; antennæ nigræ; thorax fascia antica vittisque duabus nigris, pilis nonnullis albis clavatis; abdomen fuscum; alæ anticæ fuscæ, marginibus luteo rufis nigrisque albo conspersis.*

Female. Bright red. Antennæ black. Thorax with some white clavate hairs, with a black band in front, and with a black stripe on each side. Abdomen brown at the tip. Fore wings brown, mostly bordered with white-flecked black, and also with luteous-red. Hind wings with a luteous fringe; hind part of the exterior border with a black fringe. Length of the body 8 lines; of the wings 22 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

Page 1122.

MECYTHA TRIMACULA.

The characters of this species are incomplete in the above page in consequence of the state of the specimen there described.

Mas. Corpus crassum, dense pilosum. Proboscis non conspicua. Palpi brevissimi; articulus 3us minimus. Antennæ late pectinatæ, thorace paullo breviores. Abdomen alas posticas longe superans. Pedes breves, tibiæ posticæ calcaribus duobus minimis. Alæ latiusculæ, non longæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subconvexo sat obliquo.

Male. Body very stout, thickly pilose. Palpi very short, not extending so far as the head; third joint very small. Antennæ deeply pectinated. Abdomen extending for one-third of its length beyond the hind wings. Legs short, stout. Wings rather broad, not long. Fore wings straight along the costa, rounded at the tips, slightly convex and rather oblique along the exterior border; first and second inferior veins contiguous at the base; third as far from the second as from the fourth.

Mas. *Obscure fusca; caput et thorax alba; palpi et antennæ nigra; thorax nigro trimaculatus; abdomen e maculis albis trivittatum; pedes albo fasciati; alæ anticæ fasciis latis diffusis canis, lineis undulosis albis, ocellis nonnullis albidis, maculis nonnullis discalibus nigricantibus unaque costali alba.*

Male. Dark brown. Head and thorax white above. Palpi and antennæ black. Thorax with a black spot on each side, and one in front, which is occasionally obsolete. Abdomen with three stripes of white spots, which occasionally form interrupted bands. Legs with white bands. Fore wings with two broad diffuse hoary bands, which are interrupted by undulating white lines; the outer band is accompanied by a row of whitish ringlets; two or three blackish spots in the disk, and a white costal spot at three-fourths of the length. Hind wings a little paler than the fore wings, with two very slight and slender whitish bands, the one discal, the other submarginal, and composed of small dots. Length of the body 7—9 lines; of the wings 14—17 lines.

Var. β. Inner band of the hind wings obsolete.
Var. γ. Both bands of the hind wings obsolete.

Var. δ. Blackish spots of the fore wings with ferruginous disks; veins along the exterior border with ferruginous streaks. Bands of the hind wings distinct and moderately broad.

b—d. Sydney. Presented by E. Doubleday, Esq.
e. Australia. Presented by H. G. Harrington, Esq.

Page 1129.

Genus PERNA?

Mas. Corpus breve, robustum, pilosissimum. Palpi breves, pilosissimi. Antennæ sat late pectinatæ. Abdomen alas posticas non superans. Pedes late ciliati. Alæ latæ, non longæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore mediocriter obliquo.

Male. Body short, stout, very hairy. Palpi short, very pilose. Antennæ rather deeply pectinated. Abdomen not extending beyond the hind wings. Legs deeply ciliated. Wings broad, not long. Fore wings straight in front, rounded at the tips, moderately oblique along the exterior border; first and second inferior veins contiguous at the base; third rather remote from the second; fourth more remote from the third, springing from near the base of the wing.

PERNA? COMBINATA.

Mas. *Rufo-fusca, subtus pallidior; antennæ pallide fuscæ; abdomen pilis rufescentibus albidisque vestitum; alæ anticæ gutta discali alba, fasciis tribus albis nigrisque, maculisque exterioribus nigris; posticæ pallidiores.*

Male. Reddish brown, paler beneath. Body and legs very thickly clothed with hairs. Antennæ pale brown. Abdomen clothed with pale red and whitish hairs. Fore wings with three white and black bands; the first slightly undulating at hardly before one-third of the length; the second and the third zigzag, contiguous in the disk; the second at a little beyond two-thirds of the length of the wing; a row of black spots along the outer margin, and a white discal dot. Hind wings rather paler than the fore wings. Length of the body 4½ lines; of the wings 11½ lines.

a. Sydney. From Mr. Lambert's collection.

AGISA? BASALIS.

Mas. *Cervina; antennæ nigræ: abdomen subluteum; alæ anticæ gutta basali alba, strigaque apud costæ apicem testacea.*

Male. Fawn-colour, paler beneath. Antennæ black, mutilated in the specimen described. Abdomen somewhat luteous. Wings a little paler than the thorax. Fore wings with a white basal dot, and with a testaceous streak along the apical part of the costa. Length of the body 5 lines; of the wings 10 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

Page 1132.

SEMYRA? SILVERIA.

Mas. *Testacea; alæ fascia submarginali testacea, anticæ lineis obliquis fuscis albidisque, dimidio postico roseo.* Fœm.—*Cervina; alæ anticæ strigis transversis nigris et fuscescentibus, macula postica rufescente.*

Phalæna-Bombyx Silveria, *Cram. Pap. Exot.* iv. 134, pl. 359, f. B, C.

Aselgia Silveria, *Hübn. Verz. Schmett.* 192, 1971.

Surinam.

Page 1144.

Genus EUCLEA.

Ecnomidea, *Duncan, Nat. Libr.* xxxvii. *Exotic Moths*, 183.

EUCLEA PITHECIUM.

Cervina; corpus ex parte glaucescens; alæ anticæ glaucescentes, fasciis cervinis.

Phalæna Pithecium, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 147, pl. 74.

Larva, *Stoll, Cram. Pap. Exot.* v. pl. 18 f. 1.

Ecnomidea Pithecium, *Duncan, Nat. Libr.* xxxvii. 183, pl. 21, f. 4.

Page 1155.

PAMEA NOTATA.

a. Brazil. From Mr. Mornay's collection.

Page 1157.

Genus TADEMA.

Mas. Corpus sat robustum. Proboscis non conspicua. Palpi validi, porrecti, caput sat longe superantes; articulus 3us parvus,

conicus. Antennæ late pectinatæ, thorace multo longiores, apice serratæ. Abdomen alas posticas non superans. Pedes validi, pilosi; tibiæ posticæ calcaribus duobus minutis apicalibus. Alæ latæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore subrecto et subobliquo.

Male. Body rather stout. Proboscis not visible. Palpi stout, porrect, extending some distance beyond the head; third joint small, conical. Antennæ much longer than the thorax, deeply pectinated to five-sixths of the length, serrated from thence to the tips. Abdomen extending as far as the hind wings. Legs stout, pilose; hind tibiæ with two minute apical spurs. Wings broad. Fore wings straight in front, rounded at the tips, almost straight and very slightly oblique along the exterior border.

1. Tadema Sinensis.

Mas. *Cana, fusco punctata; alæ anticæ fasciis duabus fuscis, 1a perobliqua furcata, 2a subangulata vix obliqua.*

Male. Hoary, slightly flecked with brown. Fore wings with two slender irregular brown bands, which approach each other towards the costa; first band very oblique, emitting a branch to the costa from the middle of its inner side, and with a blackish discal spot on the outer side opposite to the fork and beyond the discal areolet; second band slightly angular, hardly oblique. Length of the body 6 lines; of the wings 14 lines.

a. Shanghai, North China. From Mr. Fortune's collection.

Genus LAGOA.

Mas. Corpus robustum, breve, valde hirtum. Palpi brevissimi. Antennæ late pectinatæ, corpus dimidio paullo breviores. Abdomen alas posticas paullo superans. Pedes validi, pilis longis dense hirti; tibiæ posticæ calcaribus apicalibus parvis. Alæ anticæ sat latæ, non longæ, apice rotundatæ, apud costam rectæ.

Male. Body stout, short, very pilose. Proboscis obsolete. Palpi very short. Antennæ deeply pectinated, rather less than half the length of the body. Abdomen extending a little beyond the hind wings. Legs stout, thickly clothed with long hairs; hind tibiæ with short apical spurs. Fore wings moderately broad, not long, straight along the costa, rounded at the tips; second inferior vein as far from the first as from the third; fourth proceeding from the base of the wing.

Note.—*Mecytha testacea*, p. 1122, may perhaps belong to this genus.

1. LAGOA OPERCULARIS.

Mas. *Pallide lutea; caput apud verticem albidum, antice fuscum; abdomen et alæ posticæ testacea; pedes albido pilosi; tarsi nigri; alæ anticæ basi lanuginosæ.*

Phalæna opercularis, *Smith and Abbot, Nat. Hist. Lep. Ins. of Georgia*, ii. 105, pl. 53.

Male. Pale luteous. Head whitish on the vertex, brown in front. Antennæ white; branches brown, with white tips. Abdomen and hind wings testaceous. Legs partly clothed with whitish hairs; tarsi black. Fore wings woolly, especially towards the base. Length of the body 6 lines; of the wings 13 lines.

a. Georgia. From Mr. Abbot's collection.

2. LAGOA PYXIDIFERA.

Testacea; alæ anticæ lituris nonnullis fuscis nigrisque flexuosis discalibus.

Phalæna pyxidifera, *Abbot and Smith, Nat. Hist. Lep. Ins. Georg.* ii. 107, pl. 54.

Georgia.

Genus CANDYBA.

Mas. Corpus sat robustum. Proboscis non conspicua. Palpi graciles, porrecti, caput superantes; articulus 3us minutus, conicus. Antennæ thorace multo longiores, late pectinatæ, dimidio apicali serratæ. Abdomen alas posticas vix superans. Pedes sat validi; tibiæ posticæ calcaribus duobus apicalibus longis. Alæ breviusculæ, latiusculæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore subobliquo.

Male. Body rather stout. Proboscis obsolete. Palpi porrect, slender, extending rather beyond the head; third joint minute, conical. Antennæ much longer than the thorax, deeply pectinated to less than half the length, serrated from thence to the tips. Abdomen hardly extending beyond the hind wings. Legs moderately stout; hind tibiæ with two long apical spurs. Wings rather short and broad. Fore wings nearly straight in front, rounded at the tips, slightly oblique along the exterior border; second inferior vein full twice further from the third than from the first; third about twice further from the fourth than from the second.

1. CANDYBA PUNCTATA.

Mas. *Candida; antennæ ramis testaceis; alæ guttis duabus marginalibus subapicalibus nigris, anticæ gutta discali nigra.*

Male. Pure white, shining. Branches of the antennæ pale testaceous. Wings with two black marginal subapical dots. Fore wings with a black dot on the tip of the discal areolet. Length of the body 5 lines; of the wings 10 lines.

Central Brazil. In Mr. Saunders' collection.

Page 1165.

DREPANA? SQUALIDA.

Fœm. *Fusca; alæ anticæ fasciis duabus angulosis arcuatis obscurioribus, 1a antemedia, 2a postmedia; posticæ cervinæ, plaga postica fusca.*

Prionia squalida (*Phalæna Sphingoides. Platypterix dentata*). *Geyer, Zutr. Samml. Exot. Schmett.* iv. 40, 394, f. 787, 788.

West Indies.

DREPANA PLAGIA.

Mas. *Luteo-testacea; alæ fusco ciliatæ, anticæ gutta discali fasciaque obliqua subapicali fuscis, posticæ fasciis duabus undulatis fuscis.*

Ancistrota plagia (*Phalæna Sphingoides. Platypterix rotundata*). *Hübn. Samml. Exot. Schmett.* ii. 9, 107, f. 213, 214.

Surinam.

DREPANA DREPANULA.

Fœm. *Testacea; alæ strigis plurimis minimis guttisque nonnullis nigris, fasciaque discali intus rufa extus cyanea; anticæ fascia subbasali arcuata cyanea rufo marginata, apice fuscæ; posticæ margine intus cyaneo extus rufo.*

Syssaura drepanula (*Phalæna Sphingoides. Platypterix falcata*). *Hübn. Samml. Exot. Schmett.* ii. 13, 124, f. 247, 248.

Surinam.

DREPANA? SECURIS.

Fœm. *Straminea; alæ anticæ subhamatæ, apud discum albidæ, vitta media apice dilatata margineque postico basali fuscis, puncto apud angulum posticum guttisque apicalibus nigris; posticæ albæ.*

Psalis securis (*Phalæna Sphingoides. Platypterix falcata*). *Hübn. Samml. Exot. Schmett.* iii. 9, 146, f. 291, 292.

Java.

Page 1169.

ROSEMA ZELICA.

Phalæna-Bombyx Zelica, *Stoll, Cram. Pap. Exot.* 73, pl. 616, f. 2 2 C, 2 D.

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ROSEMA EPIGENA.

Phalæna-Bombyx epigena, *Stoll, Cram. Pap. Exot.* 72, pl. 16, f. 2 D.

Page 1184.

OXYTENIS? EPHONIA.

Fusca; alæ lineis duabus transversis duplicatis obscurioribus, interiore in posticis simplici; anticæ subhamatæ, guttis duabus discalibus nigris.

Phalæna-Bombyx Ephonia, *Stoll, Cram. Pap. Exot.* v. 159, pl. 35, f. 6; pl. 19, f. 5 (larva).

Surinam.

Genus APONA.

Fœm. Corpus crassum. Palpi brevissimi. Antennæ longæ, mediocriter pectinatæ, corpore paullo breviores. Pedes validi, late ciliati; tibiæ posticæ calcaribus duobus apicalibus mediocriter longis. Alæ latiusculæ, marginibus exterioribus subundulosis; anticæ subacuminatæ, vix falcatæ.

Female. Body thick. Palpi very short. Antennæ long, moderately pectinated, as long as three-fourths of the body. Abdomen not extending near so far as the hind wings. Legs stout,

deeply ciliated; hind tibiæ with two moderately long apical spurs. Wings rather broad; exterior borders slightly undulating. Fore wings slightly acuminated at the tips, but hardly falcated; costa convex towards the tip; three inferior veins; first and second nearly contiguous at the base; third remote.

1. APONA PALLIDA.

Fœm. *Albida; antennæ fusco ramosæ; pedes fulvescentes; alæ fasciis nonnullis obliquis subundulosis cervinis, anticæ fasciis duabus obscurioribus subrectis maculisque exterioribus fuscis.*

Female. Whitish. Antennæ with brown plumes. Legs mostly pale tawny. Wings with some slight undulating oblique fawn-coloured bands. Fore wings with two darker nearly straight bands, the outer one accompanied on the outer side by a row of irregularly alternately long and short brownish spots; a brown discal dot; a large brown mark by the exterior border towards the tip of the wing. Length of the body 10 lines; of the wings 36 lines.

a. Himalaya Mountains. From Mr. Leadbeater's collection.

Genus OGOA.

Mas. Corpus sat gracile. Proboscis non conspicua. Palpi brevissimi. Antennæ mediocriter pectinatæ, thorace multo longiores. Pedes graciles, longiusculi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ latæ, subvestitæ, semihyalinæ; anticæ apud costam vix convexæ, apice rotundatæ, margine exteriore recto sat obliquo; posticæ abdomen paullo superantes.

Male. Body rather slender. Proboscis not visible. Palpi very short. Antennæ moderately pectinated, much longer than the thorax. Abdomen extending to three-fourths of the breadth of the hind-wings. Legs slender, rather long; hind tibiæ with two very minute apical spurs. Wings broad, very thinly clothed, semihyaline. Fore wings hardly convex in front, rounded at the tips, straight and rather oblique along the exterior border; veinlet which intersects the discal areolet forked at three-fourths of its length; second inferior vein more than twice further from the third than from the first; third much further from the fourth than from the second.

1. Ogoa simplex.

Mas. *Pallide lutea; antennæ nigræ; tibiæ tarsique nigricantia; alæ anticæ linea costali antica nigra.*

Male. Pale luteous. Antennæ black. Tibiæ and tarsi blackish. Wings like the body in colour. Fore wings with a black line in front of the costa. Length of the body 11 lines; of the wings 32 lines.

a. Port Natal. From M. Guenzius' collection.

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Lonomia albigutta.

Mas. *Cervina aut roseo-cervina aut luteo-testacea; palpi pedesque ex parte fusci; antennæ testaceæ; abdomen testaceum aut albidum; alæ fascia angusta albida extus aut utrinque fusco marginata, subtus guttis duabus nigris albido cinctis, anticæ guttis duabus discalibus albis.*

Lasiocampa bigutta, *MSS.*

Male. Bright fawn-colour. Palpi and legs mostly brown above. Antennæ testaceous. Abdomen testaceous. Wings with a very indistinct lilac bloom, and with a slender oblique whitish band, which is bordered with brown on the outer side; under side slightly marked with black along the costa and towards the exterior border, and with two black discal dots, which have whitish borders. Fore wings with two white brownish-bordered discal dots. Length of the body 9—10 lines; of the wings 28—30 lines.

Var. β. Abdomen whitish.

Var. γ. Thorax and wings towards the base rosy fawn-colour.

Var. δ. Luteous-testaceous. Band of the wings with a somewhat diffused brown border on each side. Fore wings with an indistinct brownish band near the base.

a. Brazil. Presented by E. Doubleday, Esq.
b—d. Brazil. From Mr. Stevens' collection.
e. Brazil. From M. Becker's collection.

Group 2.

Mas. Corpus robustum. Palpi porrecti, pilosi, caput non superantes. Antennæ late pectinatæ, thorace paullo longiores. Pedes validi, subpilosi; tibiæ posticæ calcaribus duobus apicalibus minimis. Alæ sat latæ; anticæ apud costam rectæ, apice acuminatæ, margine exteriore recto sat obliquo; posticæ abdomen paullo superantes.

Male. Body thick. Palpi porrect, pilose, hardly stout, not extending beyond the head. Antennæ deeply pectinated, a little longer than the thorax. Abdomen extending nearly as far as the hind wings. Legs stout, slightly pilose; hind tibiæ with two very minute apical spurs. Wings rather broad. Fore wings straight in front, angular at the tips, straight and rather oblique along the exterior border; second inferior vein nearly thrice further from the third than from the first.

Lonomia venusta.

Mas. *Cervina, subtus testacea; antennæ testaceæ; thorax antice flavescens; alæ apud margines testaceæ, fasciis linearibus fuscescentibus; anticæ macula discali alba fusco marginata, subtus apud costam obscure cervinæ macula discali fusca; posticæ gutta discali fusca.*

Male. Bright fawn-colour, testaceous beneath. Antennæ testaceous. Thorax pale yellow in front. Legs testaceous beneath. Wings testaceous beyond the very slender curved exterior brownish bands, which are interrupted beneath; the outer one is almost obsolete above, as is also the inner one beneath. Fore wings with a white discal spot, which has a brown central dot, is bordered with brown, and is wholly brown beneath, where the space about it and towards the costa is dark fawn-colour. Hind wings with a brown discal dot, which is darkest beneath. Length of the body 10 lines; of the wings 32 lines.

a. Chili. From Mr. Children's collection.

Lonomia Cybele.

Alæ concolores fulvæ, fusco punctatæ striga nigra, anticæ maculis tribus, posticæ unica fenestratis.

Phalæna Penelope, *Cram. Pap. Exot.* i. 70, pl. 45, f. A.
Bombyx Cybele, *Oliv. Enc. Méth. Ins.* v. 36, 43.

Cayenne. Surinam.

Lonomia Achelous.

Alæ ferrugineæ, omnes fascia anticæque puncto albis.

Bombyx Acheloüs, *Fabr. Sp. Ins.* ii. 172, 25; *Mant. Ins.* ii. 110, 28. *Oliv. Enc. Méth. Ins.* v. 34, 28.
Phalæna Acheloüs, *Cram. Pap. Exot.* ii. 22, pl. 111, f. A.
Phalæna-Bombyx Attacus Acheloüs, *Gmel. ed. Syst. Nat.* i. 5, 2106, 474.

Eacles Acheloë, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 153, 1604.

West Indies.

LONOMIA PENELOPE.

Alæ flavescentes, fusco irroratæ, ocello centrali fenestrata.

Bombyx Penelope, *Fabr. Gen. Ins. Mant.* 278; *Sp. Ins.* ii. 171, 19; *Mant. Ins.* ii. 109, 21. *Oliv. Enc. Méth. Ins.* v. 30, 24.
Phalæna Penelope, *Cram. Pap. Exot.* i. 70, pl. 45, f. A.
Phalæna-Bombyx Attacus Penelope, *Gmel. ed. Syst. Nat.* i. 5, 2407, 481.
Eacles Penelope, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 153, 1603.

Surinam?

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LONOMIA? DOMINA.

Cervino-fulva; alæ fascia tenui obliqua exteriore fusca, striga antica exteriore excisa limpida.

Phalæna-Attacus Domina, *Cram. Pap. Exot.* iv. 28, pl. 304, f. B.
Epia Domina, *Hübn. Verz. Schmett.* (*Phalænæ Veræ Lachneides Vulgares*), 188, 1935.

Surinam.

LONOMIA? CYNIRA.

Testacea, alæ punctis nigricantibus, fasciis duabus nigris, 1a antemedia arcuata, 2a recta; anticæ macula subcostali media ocellari nigra.

Phalæna-Bombyx Cynira, *Cram. Pap. Exot.* ii. 89, pl. 152, f. C.
Eacles Cynira, *Hübn. Verz. Schmett.* (*Phalænæ Sphingoides Echidnæ Communiformes*), 154, 1605.

Surinam.

Page 1342.

MIMALLO VIOLACEA.

Violacea; alæ ciliis nigris testaceo marginatis, anticæ apud marginem exteriorem pallidiores.

Phalæna-Bombyx violacea, *Anon. Ins. Surinam*, i. 67, pl. 30.

Surinam.

Page 1370.

DIRPHIA? RIPHEA.

Ferruginosa; alæ lineis transversis obliquis undulosis testaceis, anticæ plaga maxima discali nigra albido marginata.

Phalæna-Bombyx Riphea, *Cram. Pap. Exot.* iv. 220, pl. 395, f. E. *Drury, Ins.* ii. pl. 14, f. 5.
Tolype Riphea, *Hübn. Verz. Schmett.* 189, 1944.
Surinam.

Page 1472.

ERIOGASTER CINERASCENS.

Fœm. *Fusca; antennæ testaceæ, subpectinatæ, thorace multo breviores; abdomen apice cervinum; alæ cinereo-fuscæ, anticæ strigis nonnullis discalibus nigricantibus fasciisque tribus undulosis albidis.*

Female. Brown. Antennæ testaceous, minutely pectinated, much shorter than the thorax. Abdomen fawn-colour at the tip. Wings grayish brown. Fore wings with some blackish marks in the disk, and with three whitish undulating bands, second band more oblique than the first, less oblique than the third. Length of the body 11 lines; of the wings 25 lines.

a. Bahia.

ERIOGASTER LIGNOSA.

Fœm. *Fusca; antennæ subpectinatæ, thorace longiores; abdomen alas posticas triente superans; pedes graciles; alæ breviusculæ, latiusculæ, fasciis angustis obliquis undulatis cinereis.*

Female. Brown. Antennæ slightly pectinated, rather longer than the thorax. Abdomen extending for about one-third of its length beyond the hind wings. Legs slender. Wings rather short and broad. Fore wings with slight indistinct oblique undulating cinereous bands, a little rounded at the tips, slightly oblique along the exterior border. Length of the body 9 lines; of the wings 18 lines.

a. Tasmania. Presented by R. Butler, Esq.

Page 1507.

Genus OCINARA.

Mas. Corpus vix robustum. Proboscis brevissima. Palpi brevissimi; articulus 2us 1o longior; 3us brevior. Antennæ late pectinatæ, corporis triente non longiores. Abdomen alas posticas non superans. Pedes validi, longe pilosi. Alæ latæ; anticæ vix acuminatæ.

Allied to *Bombyx Mori. Male.*—Body hardly stout. Proboscis very short. Palpi very short; second joint longer than the first; third shorter. Antennæ deeply pectinated, not more than one-third of the length of the body. Abdomen extending as far as the hind wings. Legs stout, clothed with long hairs. Wings broad. Fore wings hardly acuminated, nearly straight in front, rounded at the tips, slightly oblique along the exterior border; three inferior veins; second more than twice further from the third than from the first.

1. Ocinara dilectula.

Mas. *Albida; caput rufo-fulvo varium; thorax fascia nonnunquam interrupta fulva; abdomen subtestaceum, apice fulvum; pedes antici supra rufo-fulvi; alæ venis albis.*

Male. Whitish. Head above on each side and beneath, palpi and fore legs above reddish tawny. Thorax in front with a tawny spot on each side, or with a tawny band; some tawny hairs on the hind part. Abdomen with a slight testaceous tinge; tip tawny. Wings unvaried; veins white. Length of the body 4 lines; of the wings 10 lines.

a, *b*. Java. From the East India Company's collection.

Page 1520.

Cossus ambiguus.

Mas. *Fusca; alæ anticæ fasciis tribus aut quatuor incompletis informibus albidis; posticæ albidæ, nigro venosæ, fusco marginatæ.*

Hypopta ambigua, (*Phalæna fodicans. Teredo crassa*). *Hübn. Samml. Exot. Schmett.* i. 25, 73, f. 145, 146.

Paraguay.

Cossus? Ziliante.

Previously mentioned as one of the *Notodontidæ*. See p. 1078.

Page 1548.

Genus ANTIORA.

Mas. Corpus robustum, lineare, pilosissimum. Proboscis distincta, brevis, debilis. Palpi porrecti, breves, graciles, caput non adæquantes; articulus 3us minutus, acuminatus. Antennæ subpectinatæ, corpore paullo breviores, ramis pubescentibus. Abdomen alas posticas plus dimidio superans. Pedes validi, pilosi; tibiæ posticæ calcaribus quatuor longis. Alæ angustæ; anticæ apud costam rectæ, apice rotundatæ, margine exteriore perobliquo.

Male. Body stout, linear, very pilose. Proboscis distinct, short, feeble. Palpi porrect, short, slender, not extending so far as the head; third joint, minute, acuminated. Antennæ slightly pectinated, about three-fourths of the length of the body; branches thickly pubescent. Abdomen extending for more than half its length beyond the hind wings. Legs stout, thickly clothed with long hairs. Wings narrow. Fore wings straight in front, rounded at the tips, very oblique along the exterior border; first and second inferior veins contiguous at the base; third at some distance from the second; fourth very remote. Frenulum distinct.

Antiora subfulva.

Fusca, albo aspersa; antennæ nigræ; thorax albo bifasciculatus; abdomen apice albido pilosum, subtus luteo hirtum; pedes pilis albis luteisque densissime hirti; alæ posticæ nigro-cinereæ, antice albæ.

Brown, sprinkled with white. Antennæ black. Thorax with a tuft of white near the base of each hind wing. Abdomen blackish brown, with whitish hairs at the tip, and with luteous hairs beneath for nearly half the length from the base. Legs very thickly clothed with luteous hairs; fore and middle tibiæ very thickly clothed with white hairs. Fore wings but slightly plumose. Hind wings blackish gray, with white fore borders. Length of the body 7 lines; of the wings 18 lines.

a. Brazil. From M. Becker's collection.

Page 1579.

Genus CIBYRA.

Mas. Corpus sat validum. Proboscis non conspicua. Palpi porrecti, breves, validi, caput vix superantes; articulus 3us minutus, conicus. Antennæ sat late pectinatæ, thorace breviores. Pedes validi, pilosi. Alæ longiusculæ, sat angustæ; anticæ apud costam subrectæ, apice vix acuminatæ, margine exteriore sat obliquo.

Male. Body moderately stout. Proboscis not visible. Palpi porrect, short, stout, extending very little beyond the head; third joint minute, conical. Antennæ rather deeply pectinated, shorter than the thorax. Legs stout, pilose. Wings rather long and narrow. Fore wings almost straight in front, slightly acuminated at the tips, rather oblique along the exterior border; structure of the veins resembling that of *Hepialus*.

CIBYRA FERRUGINOSA.

Mas. *Ferruginea; antennæ fuscæ; alæ anticæ fasciis nonnullis fuscis vix determinatis; posticæ fuscæ, apicibus ciliisque fulvis.*

Male. Ferruginous. Antennæ brown. Fore wings with irregular indistinct brown bands. Hind wings brown; tips and ciliæ mostly tawny. Length of the body 6? lines; of the wings 14 lines.

a. Brazil. From Mr. Stevens' collection.

Page 1621.

TRICHELA TOLUMNENSIS.

Euchromia hirsuta, p. 208.

Page 1624.

HIRA FOLLETII.

Glaucopis Folletii, *Boisd. MSS.*

Page 1625.

For This species, &c., *read* This species chiefly differs from *H. Sperchius* by the abdomen without a white band, and by the paler colour on the wings.

Page 1718.

DECINIA METEUS.

Sphinx adscita Meteus, *Cram. Pap. Exot.* iv. 109, pl. 347, f. B.
Decinia bicolora, p. 1718.

FURTHER ADDENDA.

Page 8.

NYCTALEMON HECTOR.

"*N. fusculo-cinereus, alis anticis posticisque fascia recta obliqua alba ; alis anticis margine basali nigro, albo subundulato ; alis posticis ad apicem externam nigro plagiato seu subfasciato.*"

Nyctalemon Hector, *White.*

"A smaller species than *N. Patroclus.* Above of a darkish ashy brown, with a white oblique band running through both wings, rather wider on hind wings; tailed much as in *Patroclus*, the inner tail proportionally longer; inner edge of lower wing blotched and barred with black, the margin of exterior angle blotched and somewhat barred with black."—*White.*

a. Borneo. From Capt. Brooke's collection.

Page 22.

CASTNIA PELASGUS.

d. New Grenada. From Mr. Stevens' collection.

Page 46.

AGARISTA? MICACEA.

Alba ; caput vitta nigro-fusca argenteo guttata ; palpi nigro-fusci, albo bifasciati ; thorax fuscus, albo quadrivittatus ; abdomen albo vittatum ; alæ anticæ fuscæ, vitta brevi fasciaque brevi lata obliqua albis strigisque quatuor cyaneis ; posticæ fusco late marginatæ.

White. Head with a blackish brown stripe, which contains a silvery dot. Palpi blackish brown, with two white bands. Antennæ blackish brown, white at the base. Thorax brown, with four white stripes. Abdomen with a brown discal stripe. Legs varied with brown, partly luteous. Fore wings brown, with a short white stripe widening from the base to the middle and accompanied by two blue streaks, and with a short broad oblique white band, which latter has also a bluish streak along each side of it. Hind wings with broad brown borders. Length of the body 7 lines; of the wings 18 lines.

a, *b*. Sierra Leone. Presented by the Rev. D. F. Morgan.

AGARISTA? HESPEROIDES.

Nigro-fusca ; pectus flavo quadrivittatum ; abdomen e guttis flavis trivittatum, apice luteum ; alæ anticæ basi (subtus præsertim) flavescentes, maculis duabus discalibus una flava altera interrupta lutea ; posticæ dimidio fere basali flava.

Blackish brown. Antennæ wanting. Wings paler beneath, in shape somewhat resembling those of a *Hesperia ;* fore wings towards the base indistinctly yellowish above, much more distinctly so beneath, with the exception of the borders of the veins. Hind wings yellow for nearly half the length from the base. Length of the body 6 lines ; of the wings 20 lines.

a. Rio Janeiro. From Mr. Stevens' collection.

Page 47.

EUSEMIA MACULATRIX.

Mas. *Nigra, caput et thorax albo guttata ; abdominis segmenta flavo-cincta ; alæ anticæ gutta basali alba, fasciis tribus incompletis macularibus luteis ; posticæ fascia obliqua interrupta margineque nigris, gutta subapicali flava.*

Eusemia maculatrix, *var.?* p. 47.
Heraclia vetula, (*Phalæna Vera, Callimorpha variegata*). *Geyer, Zeitr. Samml. Exot. Schmett.* 17, 329, f. 657, 658.
Java.

Page 53.

EUSEMIA MELITE.

b. Sumatra. From Sir Stamford Raffles' collection.

EUSEMIA CONNEXA.

Nigra; caput apud oculos flavum, subtus album; thorax antice flavo quadrimaculatus; abdominis segmenta marginibus posticis luteo fasciatis; alæ anticæ flavo maculatæ, posticæ rufæ nigro marginatæ et semifasciatæ.

Black. Head yellow along the eyes above, white beneath. Palpi with a white spot on the outer side. Thorax with four yellow spots in front. Hind borders of the abdominal segments with luteous bands, which are broadest beneath. Fore wings with six yellow spots and four yellow dots; one dot at the base; one spot near it; three oblique bands in the disk, the first of two, the second of three spots, the third of three dots. Hind wings red, with irregular black borders, which are broadest behind the tips, and with a black stripe, which is shortened in front, and connected with the hind border by a black streak. Length of the body 8 lines; of the wings 22 lines.

a. Java. From the East India Company's collection.

EUSEMIA BAMBUCINA.

Nigra; thorax antice ochraceo fasciatus; abdomen apice ochraceum; alæ anticæ cyaneo strigatæ et trinotatæ, macula apicali ochracea; posticæ ochraceo late marginatæ.

Noctua bambucina, *Eschscholtz, Kotzebue Reise*, 219, pl. 11, f. 30.

a. Ceram. From Madame Ida Pfeiffer's collection.
b. Philippine Islands. From Mr. Cuming's collection.

EUSEMIA MOLLIS.

Glauco-viridis; abdomen pallide luteum; pedes testaceo tomentosi; alæ nigro maculatæ, apices versus nigræ maculis glauco-viridibus.

Glaucous-green. Proboscis piceous. Antennæ black. Abdomen pale luteous. Legs with testaceous tomentum. Wings with large round black spots, black with glaucous-green spots towards the tips. *Male.*—Abdomen with brown bands; sexual appendages large. *Female.*—Abdomen luteous, black towards the base. Length of the body 8—11 lines; of the wings 24—26 lines.

a. East Indies. From Mr. Cuming's collection.
b. Malacca. From Mr. Wallace's collection.

Page 54.

EUSEMIA? CRESCENS.

Purpureo-nigra; caput albo bivittatum; thoracæ flavo albo biguttatus; alæ anticæ squamulis nonnullis basalibus et discalibus cyaneis, guttis duabus basalibus maculisque tribus discalibus flavo-albis; posticæ macula una discali flavo-alba.

Purplish black. Head with a white mark on each side beneath the eye. Proboscis testaceous. Antennæ wanting. Thorax with two yellowish white dots on each side. Fore wings with a few blue spangles at the base and in the discal areolet, with two yellowish white dots at the base, and with three discal yellowish white spots, which successively increase in size, the exterior one transverse, oblong, and fully as large as the first and second together. Hind wings with one discal spot of the same hue. Length of the body 6 lines; of the wings 18 lines.

a. Mexico. From Mr. Glennie's collection.

Genus ARYCANDA.

Fœm. Corpus sat gracile. Proboscis non conspicua. Palpi validi, breves, arcuati, ascendentes, obtusi; articulus 3us minimus. Antennæ sat validæ, subsetosæ, corporis dimidio longiores. Abdomen alas posticas paullo superans. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ amplæ; anticæ apud costam subrectæ, apice rotundatæ, margine exteriore sat obliquo.

Female. Body rather slender. Proboscis not visible. Palpi stout, short, curved, ascending, obtuse; third joint very small. Antennæ rather stout, minutely setose, more than half the length of the body. Abdomen extending a little beyond the hind wings. Legs slender; hind tibiæ with four long spurs. Wings ample. Fore wings nearly straight in front, rounded at the tips, rather oblique along the exterior border; first and second inferior veins nearly contiguous at the base; third remote; discal areolet intersected by a primary vein.

This genus has some affinities with the *Lithosiidæ*, and with the *Pyralites* as well as with *Eusemia*.

1. ARYCANDA MACULOSA.

Fœm. *Viridi-cinerea; antennæ nigræ; thorax fascia interrupta antica nigra; abdomen testaceum; alæ fasciis septem macularibus nigris.*

Female. Greenish cinereous. Antennæ black. Thorax with a black interrupted band in front. Abdomen testaceous. Wings with seven macular black bands, the spots mostly increasing in size outwards, and the seventh or marginal band composed of elongated spots. Length of the body 9 lines; of the wings 26 lines.

a. Sumatra. From Sir Stamford Raffles' collection.

Page 115.

Genus HETEROGYNIS.

"*Mas.* Corpus gracile. Palpi pilis celati. Antennæ longiores, barbulis haud spissis tenue pectinatæ. Alæ elongatæ; anticæ ad apices valde rotundatæ. *Fœmina* vix à larva discrepans.

"Copulatio super involucrum. Ovorum partus in pupa.

"Larvæ vaginis orbatæ; pupæ integumento sericeo, oviformi inclusæ.

"Hoc genus a *Psychidis* ad *Zygænides* larvis transire videtur."—*Bruand.*

Heteroginis, *Ramb. Ann. Soc. Ent. Fr.* v. 584. *Bruand, Monogr. Psych.* 28, 114.

1. HETEROGYNIS PENELLA.

Subdiaphana, fusco rufescens, pallida, venis obscurioribus, tenuibus; antennæ nigricantes, barbulis parum elongatis, apices versus parum decrescentes.

Heterogynis Penella, *Ramb. Ann. Soc. Ent. Fr.* v. 586.
Heteroginis Penella, *Bruand, Monogr. Psych.* 29, 11, pl. 1, f. 11.

Var.? "*Alæ fusco rufescentes pallidæ, subdiaphanæ; antennæ nigræ, pectinatæ, elongatæ*, H. paradoxæ *paululum latiores.*"

Heterogynis erotica, *Graslin, Ann. Soc. Ent. Fr. 2me Sér.* viii. 396, 2, pl. 10, f. 4—7.

Germany. France. Spain.

2. HETEROGYNIS PARADOXA.

H. Penella *valde major, pallidior, subdiaphana; antennæ breviores; alæ anticæ paullulo angustiores; alæ pallide fusco-rufescentes, semihyalinæ, parce pilosæ; antennæ setiformes, pectinatæ, elongatæ.*

Heteroginis paradoxella, *Bruand, Monogr. Psych.* 31, 12, pl. 1, f. 12.

Scirra Nevada.

a. Spain. Presented by Benjamin Frend, Esq.

3. HETEROGYNIS AFFINIS.

H. Penella *paullulo minor, obscurior; corpus nigrum; alæ nigræ, barbulis elongatis, ad apices sensim decrescentes.*

Heterogynis affinis, *Ramb. Ann. Soc. Ent. Fr.* v. 586.
Var. Antennæ longiores? Heterogynis hispana, *Ramb. Ann. Soc. Ent. Fr.* v. 586.
Heteroginis affiniella, *Bruand, Monogr. Psych.* 31, 13, pl. 1, f. 13.

South France. Spain.

Page 109.

PROCRIS COGNATA.

This species is accidentally mentioned previously under the same name in page 107.

Page 180, 1614.

EURATA SERICARIA.

Nigra; thorax antice flavo postice coccineo pilosus; alæ basi flavæ, anticæ fasciis duabus discalibus vittaque costali abbreviatis olbis, posticæ macula lunata alba; abdomen albo annulatum.

Glaucopis sericaria, *Perty, Del. Anim. Artic.* 159, pl. 31, f. 14.
Brazil.

Page 222.

Genus SYNTOMEIDA.

Syntomeida, *Harris.*
Hippola, p. 222.

Page 223.

Syntomeida Ipomææ.

Ochracea; alæ anticæ nigro-virides flavo-albo quinque maculatæ; posticæ nigro-violaceæ, macula basali hyalina; caput et antennæ nigra, illum ochraceo maculatum; vittæ duæ humerales, macula thoracica postica trdnsversa, abdominisque incisuræ nigræ; pedes nigro-violacei; coxæ subtus femorumque macula, ochraceæ.

Sesia Ipomææ, *Œmler.*
Glaucopis (Syntomeida) Ipomææ, *Harris, Descr. Cat. N. Amer. Sphin.* 36, 1.
Euchromia ferox, *var.?* p. 223.

"Fore wings greenish black, with three yellowish white dots near the front margin, and two others close together beyond the middle; hind wings violet-black, with a transparent colourless spot at the base; body tawny-orange; antennæ and head black, the latter spotted with orange; a broad stripe on the shoulders covers, a transverse spot on the thorax behind, and the incisures of the abdomen black; legs violet-black; coxæ beneath, and a spot on the thighs orange-coloured."

Georgia.

Page 278.

Euchromia? Jynx.

Fœm. *Nigra, cyaneo trivittata; alæ anticæ vitta basali postica fasciaque lata obliqua aurantiacis, apice albæ; posticæ subtus cyaneo binotatæ.*

Calosoma Jynx (*Sphinx papilionoides, Glaucopis amula*). *Geyer, Zutr. Samml. Exot. Schmett.* 39, 391, f. 781, 782.

Java.

Page 303.

EPHIALTIAS VITTULA.

Ephialtias vittula, *Geyer, Zutr. Samml. Exot. Schmett.* 15, 133, f. 265, 266.

Josia Adiante, p. 303.

Brazil.

Page 347.

PERICOPIS AMPHISSA.

Fœm. *Lutea; corpus nigro vittatum; thorax albo guttatus; alæ nigro-venosæ; anticæ luteo-testaceæ, fasciis duabus obliquis, 1a antemedia, 2a postmedia postice dilatata apiceque nigris; posticæ margine nigro luteo guttato.*

Epistome Amphissa (*Phalæna Vera, Callimorpha variegata*). *Geyer, Zutr. Samml. Exot. Schmett.* 35, 377, f. 753, 754.

Var. Pericopis subguttata, p. 347.

Brazil.

Page 373.

Genus CYLLOPODA.

Mas. Pedes postici breves, spurii.

Cyllopoda, *Dalman.*

CYLLOPODA CLAUDICULA.

Alæ atræ; anticæ areola baseos triangulari fasciaque transversa, posticæ vittis duabus, saturate flavis; abdomen fuscum, linea laterali gemina.

Bombyx (Cyllopoda) claudicula, *Dalm. Anal. Entom.* 102.

Brazil.

Page 512.

LITHOSIA NIVEA.

Fœm. *Candida; caput supra nigrum, antice luteum; palpi lutei, apice nigri; antennæ fulvæ, subsetosæ; thorax iridescens; abdomen supra testaceum; pedes lutei, antici nigro vittati; alæ nitentes.*

Female. Pure white. Head black above, luteous in front. Proboscis tawny. Palpi luteous, with black tips. Antennæ tawny, minutely setose, about three-fourths of the length of the body. Thorax with iridescent lustre. Abdomen testaceous above. Legs luteous; fore legs striped with black. Wings shining. Length of the body 6 lines; of the wings 18 lines.

Brazil. In Mr. Saunders' collection.

LITHOSIA NIGRIPARS.

Mas. *Albida; caput et thorax anticus testacea; antennæ fulvæ; palpi apice nigri; femora tibiæque supra tarsique nigricantia; alæ anticæ subtus pallidissime fuscæ, ad costam nigricantes.*

Male. Whitish. Head, proboscis and fore part of the thorax testaceous. Antennæ tawny, minutely setose, white at the base. Palpi with black tips. Femora and tibiæ above and tarsi blackish. Fore wings very pale brown beneath, blackish along the costa. Length of the body 6 lines; of the wings 16 lines.

Hindostan. In Mr. Saunders' collection.

Page 552.

BIZONE GUTTIFERA.

Fœm. *Alba; palpi ex parte fusci; thorax fascia antica vittisque duabus lateralibus luteis; alæ anticæ luteo quadrifasciatæ, apud discum nigro triguttatæ; posticæ ex parte subsetaceæ.*

Female. White. Proboscis testaceous. Palpi partly brown. Thorax with a luteous band in front, and with two slight luteous lateral stripes. Fore wings with four luteous bands, and with three black discal dots between the second band and the third. Hind wings slightly and partly tinged with testaceous. Length of the body 4 lines; of the wings 12 lines.

a. Landoor, N. W. Himalaya. Presented by General Hearsay.

Page 564.

RUSCINO MENEA.

Phalæna (Noctua) Menea, *Drury, App.* iii. *Ill. Exot. Ins.* iii. 4, pl. 3, f. 2.

Arctia? Menea, *Westw. ed. Drury*, iii. 4, pl. 3, f. 2.

Brazil.

Page 574.

2. CALLIMORPHA? MODESTA.

Ferruginosa; abdomen rufescens; alæ anticæ striga costali apicali rubra; posticæ rufescentes.

Phalæna modesta. *Cram. Pap. Exot.* ii. 28, pl. 115, f. C.
Tyria modesta, *Hübn. Verz. Schmett.* 166, 1718.
Surinam.

Page 597.

ARCTIA QUENSELII?

Fœm. *Nigra; thorax testaceo quadrivittatus; abdomen testaceo bivittatum; alæ anticæ vittis luteis apices versus furcatis et confluentibus; posticæ vittis testaceis apice connexis.*

Arctia Quenselii (*Phalæna Vera, Hypercompa colorea*). *Geyer, Zutr. Samml. Exot. Schmett.* 14, 424, f. 847, 848.
Arctia gelida? p. 611.
Labrador.

Page 610.

ARCTIA PHYLLIRA.

Euplagia Phyllira (*Phalæna Vera, Callimorpha variegata*). *Geyer, Zutr. Samml. Exot. Schmett.* ii. 9, 108, f. 215, 216.

Page 613.

ARCTIA? SACRIFICA.

Nigro-fusca; thorax antice flavo fasciatus; abdomen e maculis viridibus bivittatum, apice coccineum; alæ anticæ vitta discali rosea apicem versus trifurcata; posticæ guttis marginalibus albis, vittisque posticis, 1a intus abbreviata albida, 2a completa coccinea.

Eucharia sacrifica, (*Phalæna Vera, Hypercompe colorea*). *Geyer, Zutr. Samml. Exot. Schmett.* iii. 21, 237, f. 473, 474.
Ypanema.

Page 651.

HYPERCOMPA LECONTEI.

Var.? Callimorpha militaris, *Harris, Treat. Ins. N. Engl.* 243; *Ed.* 2, 264.

Page 669.

SPILOSOMA CUNEA.

Mas. *Alba; abdomen apice testaceum; alæ anticæ fasciis quatuor incompletis guttularibus fuscis, 2a 3aque angulatis postice approximatis.*

Cycnia Cunea (*Phalæna Vera, Hypercompe pallida*). *Geyer, Zutr. Samml. Exot. Schmett.* iii. 8, 203, f. 405, 406.

SPILOSOMA EGLE.

Euchætes Egle, *Harris, Treat. Ins. N. Engl.* 257; *Ed.* 2, 277.

Page 679.

SPILOSOMA TRUNCATUM.

Mas. *Cervina; palpi supra nigri; abdomen luteum, e maculis nigris trivittatum; alæ anticæ linea nigricante, e basi ad medium extensa; posticæ testaceæ, marginibus latis cervinis.*

Male. Fawn-colour, paler beneath. Palpi black above. Antennæ black. Abdomen luteous, with black transverse dorsal spots, and with black lateral dots. Fore wings with a blackish line, which extends from the base to the discal areolet. Hind wings testaceous, with broad fawn-coloured borders. Length of the body 6 lines; of the wings 15 lines.

a. Cape. From M. Dregé's collection.

Page 682.

CYCNIA BUDEA.

Mas. *Alba; alæ anticæ puncto discali fusco.*

Cycnia Budea (*Phalæna Vera, Hypercompe pallida*). *Hübn. Samml. Exot. Schmett.* ii. 31, 194, f. 387, 388.

Georgia and Florida.

Page 686.

ALPENUS ÆQUALIS.

b, *c*. Congo. Presented by Sir J. Richardson.
d—*f*. Sierra Leone. Presented by the Rev. D. F. Morgan,

Page 719.

PURIUS? VULPINUS.

Cervina ; alæ anticæ costa lutea. Mas.—*Alæ posticæ albæ, testaceo marginatæ.* Fœm.—*Alæ posticæ luteæ.*

Antarctia vulpina, *Hübn. Samml. Exot. Schmett.* ii. *Lep.* iii. *Phal.* ii. *Veræ*, xii. *Trichodæ A. Hebescentes?* f. 1—4.

PURIUS? BRUNNEUS.

Mas. *Obscure fusca ; antennæ et pedes fulvescentia ; alæ posticæ subtestaceæ, antice cinereæ.*

Antarctia brunnea (*Phalæna Vera, Trichoda hebescens*). *Geyer, Zutr. Samml. Exot. Schmett.* iii. 7, 202, f. 403, 404.

Monte Video.

Page 726.

AMERILA MAURITIA.

Not a species of *Hypsa*. See p. 455.

Page 752.

SCIATHOS?? LEUCOSTIGMA.

Rufus, subtus testaceus ; thorax nigro trimaculatus ; alæ anticæ apud costam nigræ, rufo trifasciatæ, macula discali trigona alba ; posticæ testaceæ.

Phalæna leucostigma, *Anon. Ins. Surin.* pl. 112.

Female. Red, pale testaceous beneath. Palpi rather long. Antennæ simple in both sexes? Thorax with three black spots, one in front and two behind. Abdomen extending a little beyond the hind wings. Fore wings black along the costa, with three red bands; first band macular; second beyond the middle, and containing a triangular white discal spot; third marginal. Hind wings pale testaceous, with a slight rosy tinge along the interior border.

Surinam.

Page 753.

Genus DIAPHORA.

Diaphora, *Hübn. Verz. Schmett.*
Ovios, p. 753.

1. DIAPHORA CAPENSIS.

Ovios capensis, p. 753.

Page 754.

DIAPHORA SYLVINA.

Bombyx elegans, *Fabr. Ent. Syst. Bomb.* 109.
Diaphora elegans, *Hübn. Verz. Schmett.* 188, 1936.
Ovios Sylvina, p. 754.

Page 775.

Fam. ARCTIIDÆ?

——— CORDATA.

Alæ incumbentes; anticæ rubro ferrugineæ, maculis punctisque argenteis; posticæ fuscæ, immaculatæ, margine pallido.

Bombyx cordata, *Ljung, Kongl, Vet. Acad. Handb.* 1825, 347, pl. 2, f. D.

West Indies.

Page 840.

Dele EUPROCTIS SPECTRA, &c. See p. 821.

Page 852.

TEARA? CASTALIA.

Alæ rotundatæ medio albæ, anticæ ocello, posticæ puncto fusco.

Bombyx Castalia, *Fabr. Syst. Ent.* 559, 13; *Sp. Ins.* ii. 171, 23; *Mant. Ins.* ii. 110, 26; *Ent. Syst.* iii. 1, 416, 31. *Oliv. Enc. Méth. Ins.* v. 32, 34.

Phalæna-Bombyx Attacus Castalia, *Gmel. ed. Syst. Nat.* i. 5, 2407, 484.

New Holland.

Page 1229.

BUNÆA PHÆDUSA.

Bombyx Saturnus, *Fabr.*, is probably a distinct species. See p. 1222.

Page 1390.

GASTROPACHA QUERCIFOLIA.

Euthrix Quercifolia, *Meig. Syst. Beschr. Eur. Schmett.* ii. 1921, pl. 77, f. 1 ; *Handb.* 130, 67.

Page 1391.

GASTROPACHA POPULIFOLIA.

Euthrix Populifolia, *Meig. Syst. Beschr. Eur. Schmett.* ii. 1922, pl. 77, f. 2 ; *Handb.* 130, 66.

GASTROPACHA ILICIFOLIA.

Euthrix Ilicifolia, *Meig. Syst. Beschr. Eur. Schmett.* ii. 193, 4, pl. 77, f. 4 ; *Handb.* 129, 64.

Page 1392.

GASTROPACHA BETULIFOLIA.

Euthrix Betulifolia, *Meig. Syst. Beschr. Eur. Schmett.* ii. 192, 3, pl. 77, f. 3 ; *Handb.* 130, 67.

Page 1395.

GASTROPACHA ALBIPECTUS.

This seems to be a mutilated specimen of *Polymena hamata*, p. 1422.

Page 1406.

EUTRICHA PINI.

Euthrix Pini, *Meig. Syst. Beschr. Eur. Schmett.* ii. 194, 6, pl. 77, f. 5 ; *Handb.* 131, 68.

Page 1408.

EUTRICHA LOBULINA.

Lasiocampa lobulina, *Meig. Syst. Beschr. Eur. Schmett.* ii. 200, 7, pl. 78, f. 2; pl. 80, f. 10.

Page 1410.

ODENESTIS POTATORIA.

Euthrix potatoria, *Meig. Syst. Beschr. Eur. Schmett.* ii. 195, 7, pl. 78, f. 1; *Handb.* 132, 70.

Page 1413.

For Genus 7. AMYDONA (nomen bis lectum, p. 1110), *read* TRABALA.

For AMYDONA HUMERALIS, *read* TRABALA HUMERALIS.

For AMYDONA GUTTULARIS, *read* TRABALA GUTTULARIS.

Page 1414.

For AMYDONA UNICOLOR, *read* TRABALA UNICOLOR.

For AMYDONA VARIA, *read* TRABALA VARIA.

Page 1415.

For AMYDONA BASALIS, *read* TRABALA BASALIS.

Page 1416.

For AMYDONA LÆTA, *read* TRABALA LÆTA.

Page 1417.

For AMYDONA PRASINA, *read* TRABALA PRASINA.

For AMYDONA PALLIDA, *read* TRABALA PALLIDA.

Page 1444.

LASIOCAMPA? ANNULIPES.

Alæ omnes pallide fuscescentes; anticæ costa basique saturatiores; abdomen supra et thoraæ fasciculis fuscis; pedes nigri, luteo annulati.

Bombyx annulipes, *Boisd. Faun. Ent. Mad. Bourb. et Maur.* 87, pl. 12, f. 3.

Bourbon.

Page 1585.

AGARISTA FEISTHAMELII.

Apina Feisthamelii, p. 757.

Page 1636.

AUTOMOLIS DOCIS.

Fœm. *Nigro-fusca; caput et thorax postice cyanea; thorax rufo quadrimaculatus; abdomen e maculis cyaneis trivittatum, basi subtusque coccineum; alæ anticæ vitta arcuata ramulum ad costam emittente coccinea; posticæ macula antica basali coccinea.*

Page 1689.

TERMESSA SHEPHERDI.

Termessa Shepherdi, *Newman, Trans. Ent. Soc. Lond.* 1856.
Termessa læta, p. 1689.

Page 1702.

For ALOA VACILLANS, *read* AMPHISSA VACILLANS. See p. 685.

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